Bird records from Laos, principally the Upper Lao/Thai Mekong and Xiangkhouang Province, in 1998–2000

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Since 1992 many bird surveys have investigated the communities of the Lao national protected area system. These areas are mainly forest. Little attention has been focused on the birds of wide rivers (notably the Mekong), grasslands and other open habitats. Historical information on birds is available for very few of the protected areas, limiting the understanding of status trends. During 1998-2000, observations were made in two areas with among the best historical coverage in Laos: Xiangkhouang province and the Upper Lao Mekong. Visits to several other unprotected sites are also documented. A relatively rich community remains on the Mekong. Although severe declines have occurred among large waterbirds, terns, vultures and fish eagles, good breeding populations remain of River Lapwing Vanellus duvaucelii, Small Pratincole Glareola lactea, Plain Martin Riparia paludicola, Wire-tailed Swallow Hirundo smithii and Jerdon's Bushchat Saxicola jerdoni. River Tern Sterna aurantia, Great Cormorant Phalacrocorax carbo (the first Lao records for 60 years), Great Thick-knee Esacus recurvirostris, Pied Kingfisher Ceryle rudis, Blue-tailed Beeeater Merops philippinus and Large-billed Crow Corvus macrorhynchos persist in small numbers. Stretches of river with varied channel characters in the low-flow season (i.e. sand, gravel, rocks, bushland and braided streams) support a much richer community than stretches with only large open sandbars, or open water alone. In Xiangkhouang, many grassland birds seem to have declined, as indeed do almost all large and medium-sized birds of open habitats, here and along the Mekong, notably starlings Sturnus and mynas Acridotheres, Large-billed Crow and consequently Asian Koel Eudynamys scolopacea, Red-wattled Lapwing Vanellus indicus, Common Hoopoe Upupa epops, Shorteared Owl Asio flammeus, quails Coturnix and buttonquails Turnix, Chinese Francolin Francolinus pintadeanus, all three species of Streptopelia doves, and perhaps some granivores. The national status of Small Buttonquail Turnix sylvatica, Black-billed Magpie Pica pica, Asian Pied Starling Sturnus contra, Chestnut Munia Lonchura malacca and the wintering population of Red Collared Dove Streptopelia tranquebarica probably merit considerable concern. Population declines are almost certainly due to over-harvesting, because suitable habitat remains abundant for all these species. Pinewoods investigated in Xiangkhouang lacked most of the special species historically present, perhaps reflecting their degraded condition, although Black-headed Greenfinch Carduelis ambigua was found after a 55-year gap. Other individual records of significance include: the first Lao records of Ashy Wood Pigeon Columba pulchricollis, Grey-tailed Tattler Heteroscelus brevipes, Grey Plover Pluvialis squatarola, the herring gull Larus argentatus group, Purple Cochoa Cochoa purpurea and Spotted Bush Warbler Bradypterus thoracicus; the first recent record of Grey-winged Blackbird Turdus boulboul; records of four wader species new to North Laos and one new to Central Laos; and documentation of the colonising Peaceful Dove Geopelia striata population. Some priorities for further surveys of vulnerable bird communities are identified.

INTRODUCTION

Since 1992, many bird surveys have taken place in and around proposed National Biodiversity Conservation Areas (NBCAs) of Laos (Thewlis et al. 1996, Evans and Timmins 1998, Duckworth et al. 1998a, Evans et al. 2000a, Davidson in prep.). These surveys followed a gap of approximately 40 years when almost no new information was placed into the public domain; the valuable observations of W. W. Thomas in 1962–1964 and 1981–1983 remain unpublished. The limited historical activity concentrated on accessible areas, most of which have since become heavily settled. The NBCAs are mainly remote forest areas, and thus few have any significant historical information on birds, while the areas that were documented in the past have mostly

not been revisited. The lack of ability to compare bird communities at the same site in different eras hampers assessment of the conservation status of birds in Laos.

The NBCA system places high priority on extensive little-encroached habitat (Berkmüller et al. 1995a,b). While this is clearly the most effective way to conserve ecosystems and target species, habitat types that do not occur in large tracts tend to be under-represented, or omitted, from the protected area system. The most obvious are very large lowland rivers (notably the Mekong), and non-flowing wetlands away from deciduous dipterocarp forest. With a focus of survey effort on NBCAs, these habitats are also undersurveyed.

These two considerations led to a series of short recreational birding trips within Laos in 1999 and early 2000. The two main areas visited were Xiangkhouang Province, where A. David-Beaulieu lived during 1937– 1942 and 1946–1947, and documented the birds in a series of publications, and the Upper Lao Mekong, which was collected in a winter expedition by Delacour and Greenway (1940a,b). In addition a visit was made to Muang Xaisomboun Special Zone, formerly within Xiangkhouang Province, in an unsuccessful attempt to enter the higher montane zone of Phou Bia, the highest mountain in Laos. The Mekong in Vientiane Municipality was covered intermittently during the period, with one visit to Pakxan. Also presented are records from the Thai bank of the Mekong along the Lao-Thai border, extending through Central Laos and just into the South. All records from these trips are presented here in full, even if they appeared in Duckworth et al. (1999), a mainly secondary source that did, however, detail some previously unpublished records from prior to March 1999. A parallel synthesis (Davidson in prep.) documents observations from

formal bird surveys during 1997–1999, and incidental observations from areas not covered here. Field observations of mammals at the sites treated here were restricted to treeshrews and squirrels and, in the absence of specimens, do not merit publication. Sequence, species limits and nomenclature follow Inskipp et al. (1996). Lao risk assessments and division of Laos into North, Centre and South follow Duckworth et al. (1999). Scientific names are given in the text only for species not in Appendix 1. Place names are based on the 1986 series of 1:100,000 maps produced by the RDP Lao Service Géographique d'Etat following the minor nomenclature modifications of Thewlis et al. (1998), except that Nakai Plateau and derivatives is spelt thus, rather than Nakay, in deference to widespread usage. Sites not included in the gazetteer of Thewlis et al. (1998) are detailed in Appendix 2. Reserve names follow Thewlis et al. (1998). All altitudes are approximate, and derived from the RDPL maps.

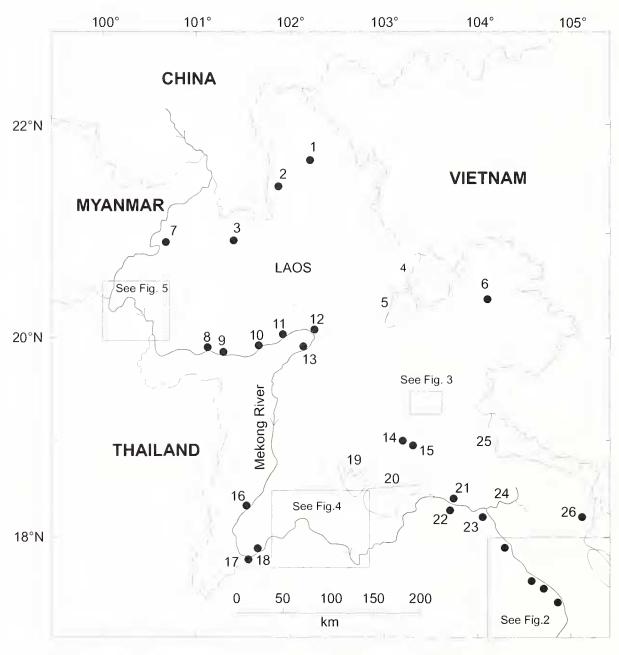


Figure 1. Northern Laos, showing areas and selected localities mentioned in the text (see also Figs 3–5; note that the inset here for Fig. 2 includes only a small northerly section of the area covered in Fig. 2). 1: Phongsali; 2: Ban Muangyo; 3: Louang-Namtha town; 4: Nam Et NBCA; 5: Phou Louey NBCA; 6: Xam-Nua town; 7: Ban Xiangkhok; 8: Muang Pakbeng; 9: Ban Thaxoang; 10: Ban Bo; 11: Ban Lay; 12: Pak Ou; 13: Louangphabang town; 14: Muang Xaisomboun; 15: Phou Bia; 16: Paklay; 17: Xaignabouli-Thai border; 18: Chiang Khan island; 19: Nam Ngum reservoir; 20: Phou Khaokhoay NBCA; 21: Pakxan; 22: Bung Kan Dist.; 23: Bung Khla Dist.; 24: Nam Kading river; 25: Nam Chouan proposed NBCA; 26: Ban Lak (20).

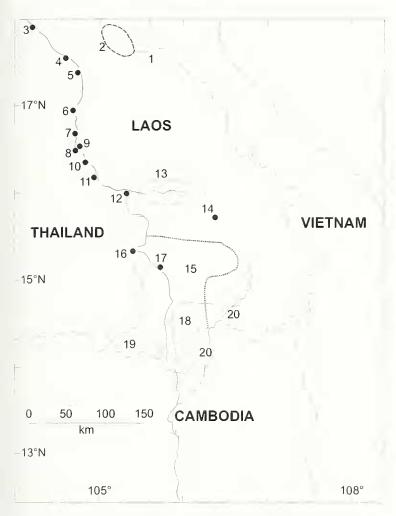


Figure 2. Southern Laos, showing localities mentioned in the text. 1: Nakai-Nam Theun NBCA; 2: Nakai Plateau; 3: Ban Phaeng Dist.; 4: Tha Uthen Dist.; 5: Nakhon Phanom Dist.; 6: That Phanom Dist.; 7: Ban Waan Noi; 8: Mukdahan Dist.; 9: Savannakhet town; 10: Ban Na Pho; 11: Chanuman Dist.; 12: Hat Sung; 13: Xe Bang-Nouan NBCA; 14: Salavan town; 15: Champasak Province; 16: Khong Chiam Dist.; 17: Pakxe; 18: Xe Pian NBCA; 19: Dong Khanthung proposed NBCA; 20: Xe Kong river.

AREAS VISITED AND METHODS

All areas are shown in Figs. 1-5. Coordinates, altitudes and biogeographic information for sites not in the gazetteer of Thewlis *et al.* (1998) are given in Appendix 2

Xiangkhouang

Detailed information on the birdlife of the Xiangkhouang area (formerly known as Tran Ninh) comes from the French colonial administrator Armand David-Beaulieu (1939, 1940, 1944, 1948), although he noted that his information was particularly patchy for raptors. Xiangkhouang is now one of the most degraded provinces in Laos; hence, excepting a small area in the south along the Vietnamese border, no areas within it were proposed as protected areas by Berkmüller et al. (1993, 1995b), and no recent wildlife surveys have taken place. The bird communities described by David-Beaulieu include species and, particularly, numbers, of certain groups not recorded recently from anywhere in Laos: notably wintering raptors and ducks plus various grassland birds inhabiting the large (c.400 km") 'Tranninh Plateau' at 1,100–1,200 m, and montane forest species. Our field observations were made during extended weekend visits in February, September,

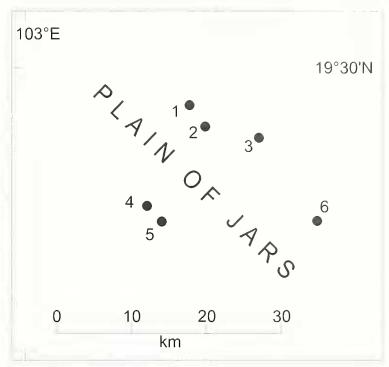


Figure 3. Xiangkhouang Province (part), showing localities mentioned in the text. 1: Ban Phonsavan; 2: Ban Phonsavan pinewoods; 3: Phou Gnouan; 4: Ban Latsen; 5: Jar site II; 6: Xiangkhouang town.

October and November 1999, and April 2000. They were concentrated at Ban Latsen (probably the largest wetland remaining in the area) and in the montane evergreen forest of Phou Gnouan. Pinewoods within two hours' walk of Ban Phonsavan were also visited. Ban Latsen is a large grassland with seasonal pools (most or all of which were artificially constructed), across which are scattered streams and rice fields. Continuing conversion to agriculture was apparent. Fishing activity and buffalo grazing are heavy. Although unexploded ordnance is still frequently found in the province, the large number of buffaloes at Latsen meant that it was possible to cross the grasslands away from paths to try to flush quails, buttonquails etc, with no risk of detonation. Ban Latsen was visited frequently by David-Beaulieu. Phou Gnouan rises to c.1,825 m and has a relict patch of broad-leaved evergreen forest, probably of several square kilometres, from 1,700 m to the peak. Terrain is steep and there is little total land area at very high altitude. Between 1,200 and 1,700 m was a mosaic of active cultivation (hai), fallow hai, scrub and degraded secondary forest. Many large trees have been removed from the upper montane forest (which was evidently heavily used during the war years), and large conifers were still being actively harvested. The massif is continuous with a large area above 1,400 m, probably retaining other similar forest patches. Cattle are grazed to the highest levels. Phou Gnouan was not mentioned by David-Beaulieu, but he did visit broad-leaved forest at comparable altitudes nearby. Similarly, although there is no evidence that he visited the pinewoods around Ban Phonsavan, he worked those around the then provincial capital, Xiangkhouang town; and these pinewoods are probably still contiguous, albeit very degraded in places. The many small and degraded pinewoods around Ban Phonsavan contain few, if any, large pine trees. Broad-leaved evergreen trees occur mainly in gullies. Collection of wood and other products

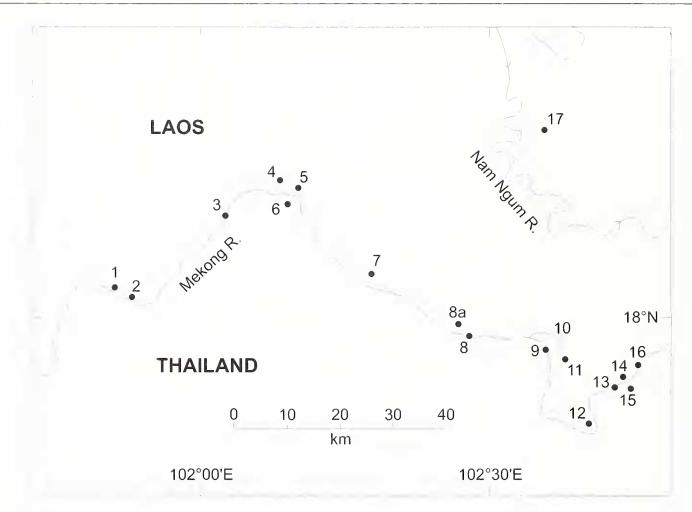


Figure 4. The Mekong in Vientiane Municipality, showing localities mentioned in the text. 1: Ban Vang; 2: Pakchom sandbar; 3: Don Chan; 4: Paksang; 5: Ban Nasa; 6: Ban Phu Khao Thong; 7: Ban Thanasanghin; 8: Ban Mai Island; 9: Ban Houayhom; 10: Don Chuan; 11: Vientiane; 12: Vat Nak; 13: Ban Xayfong; 14: Lao-Thai bridge; 15: Ban Thadua; 16: Nong Khai; 17: Vat Xiangkhouan; 18: Ban Sivilai.

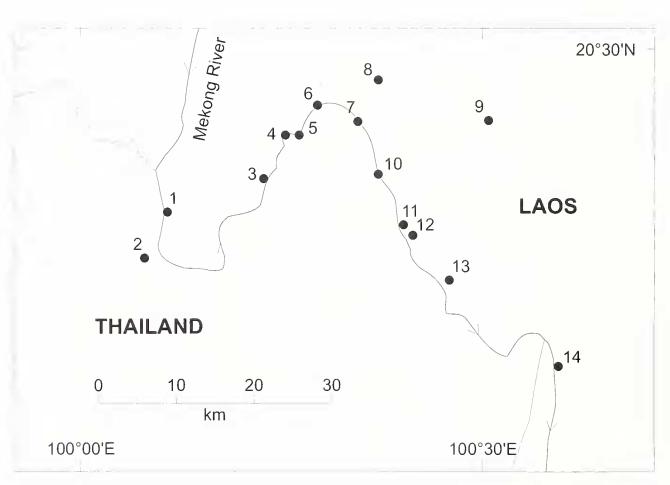


Figure 5. A section of the Upper Lao Mekong, showing localities mentioned in the text. 1: Ban Tonpheung; 2: Chiang Saen; 3: Ban Donkhon; 4: Ban Namkeung-Kao; 5: Ban Donkhao; 6: Ban Muangmom; 7: Ban Namgnon-Kao; 8: Phou Phadeng; 9: Lo-Tiao (approximate location); 10: Ban Namgniou; 11: Ban Khonkeo; 12: Ban Houayxai; 13: Ban Viangkham; 14: Ban Paktha.

is heavy, and the margins of the woods thinned noticeably over the 14 months of our visits. On our February 1999 visit, the main market in Ban Phonsavan, the provincial capital, was checked daily, sometimes several times.

Muang Xaisomboun

The growing town of Muang Xaisomboun administers an eponymous 'special zone', outside the province system. The sole bird-related reason to visit (13–16 November 1999) was to ascend Phou Bia; permission to do so was not granted. Two previous visitors had biological bents. David-Beaulieu (1944) saw many birds unrecognisable to him, but severely under-budgeted the quantity of cartridges on his only ascent of the mountain, and so could not identify them. Kerr (1933) made no observations on forest birds. Hence, the avifauna of this mountain remains a mystery. It will doubtless yield many prizes to the first successful birding entry. Observations were made in the degraded agricultural habitats around the town, the karst, and the extensive hill grassland, up to 1,250 m. No significant wildlife market was found.

Upper Lao Mekong (including adjacent dryland areas of Bokeo)

The *Haut Mekong* is the name of a former Lao province of 11,000 km" spanning roughly the modern provinces of Louang-Namtha and Bokeo. The translated equivalent, 'Upper Lao Mekong' is used here for a larger area, the Mekong from its inflow to Laos downstream to Vientiane. Several previous accounts have considered the birds of this area. Oustalet (1898) gave some information that, for distinctive species (e.g. Small Pratincole), remains very useful today. Bingham and Thompson (1901), in a lengthy documentation of the birds of upper Myanmar, include some records explicitly from the Mekong, and thus, on or close to the Lao border: there is only about 20 km of Mekong that forms the Myanmar-China border. Robinson and Kloss (1931) covered the Mekong from Paklay downstream to Central Laos in 1919; most species they collected seem yet to be written up. Bangs and van Tyne (1931) documented a June 1929 trip from Pak Ou down the Mekong, reaching Savannakhet in July. In winter 1938– 1939, Delacour and Greenway (1940a,b) travelled upstream from Louangphabang to Ban Houayxai over five late December days, spent a few days each around Ban Houayxai, Ban Namkeung-Kao, and in mid-January reached their upstream limit of Chiang Saen. They then boated back downstream to Louangphabang. The focus of the winter 1999–2000 visit (27 December– 8 January) was on covering as much of the Mekong upstream of Vientiane as possible. Limitations of time and budget prevented boating of the stretch from Louangphabang to Paklay, but otherwise the entire stretch from Ban Xiangkhok (almost the upstream extent of the Lao Mekong) to Vientiane was covered, some of it more than once. During 6-13 April 2000, stretch between Ban Xiangkhok Louangphabang was again boated. Additionally presented are records from between Louangphabang and Pak Ou on 29 January 1999, around Chiang Saen on 21–22 January 2000, and (made from Thailand) from Chiang Khan (almost at the Xaignabouli–Thai border) to Vientiane during 20–23 April 2000.

Lo-Tiao was a poor hamlet on the slopes of the mountain 'Phu-Deng' in Bokeo Province where Delacour and Greenway (1940a,b) collected for eight days; they found several species even now known by few or no other records in Laos. In 1999, high slopes in this general area were not accessible in a day trip from Ban Houayxai, although several days were spent in the valley and lower slopes of the tallest mountain in the area, Phou Phadeng (probably the same as 'Phu-Deng'). In 1939 local cultivators had already devastated the hill forest, and only heavily degraded forest was accessible in 1999. In this area, the Mekong-side villages of Ban Namgnon-Kao and Ban Namgniou (a little downstream of Delacour's Ban Namkeung-Kao) were visited in 1999-2000. Land-based observations were also made in Ban Houayxai, Ban Khonkeo, Ban Viangkham, Ban Xiangkhok and Paklay. All other observations were from boat. The best craft from which to observe would be a small open boat hired specifically for the purpose, but this was beyond personal budgets. Therefore, observations were made from a mix of types. Upstream of Ban Houayxai, these were passenger-carrying speedboats with powerful multi-valve engines; it was possible, by paying the boatman extra, to go fairly slowly. From Ban Houayxai to Louangphabang, tourist barges were used, where passengers sat within a roofed area, and thus had limited viewing ability. From Paklay to Vientiane, a commercial grain barge was boarded, where the observer was free to sit in the bows and scan to all angles. In all boats the lack of ability to ask it to stop, or go back, reduced the ability to record birds, and thus in selected stretches (Ban Muangmom to Ban Khonkeo, and Louangphabang to upstream of Pak Ou) boats were hired specifically to allow this. Nonetheless, the counts for all stretches covered are indicative only and we may have overlooked substantial numbers of birds.

For much of the length covered, the Mekong flows within Laos. However, it forms much of the border with Thailand, and a significant length forms the border with Myanmar (Table 1). Where the river forms the international border, most of the channel, including islands and mosaics exposed at low-flow season, is mapped as Lao territory. All birds in the channel were recorded with no distinction of country; available time was used for searching for more birds, and in any case a moment after sighting they might change country.

Mekong in Vientiane Municipality

The Mekong in Vientiane Municipality has been watched intermittently since autumn 1992 (Duckworth 1996, Thewlis et al. 1996, Duckworth et al. 1998a), but coverage has still been so low that there is only weak understanding of seasonal variation in species abundances. Many scarcer species doubtless remain to be recorded. The records presented here (from October 1998 to December 1999) add noticeably to understanding of this stretch, but many questions remain unanswered. Don Chuan, the main island by the town centre, was the site visited most often. Records from Ban Thadua are, except where stated, from the vicinity of Vat Xienkhoaun, where there is a large, partially vegetated sandbar. Several other sites, all with exposed sandy islands and some vegetation growth, were visited occasionally, including Paksang (described in Duckworth 1996). Because of the lack of information available on the seasonality of occurrence, records from

each site are split by season, although the current body of data is too small to allow meaningful conclusions yet to be drawn.

Middle Lao Mekong

The Mekong downstream of Vientiane has barely been covered until Phou Xiang Thong NBCA is reached (Evans et al. 2000a); Evans (2001) is a notable exception. During 19–29 April 2000, PDR drove beside the whole length of the Mekong from where it emerges from Laos upstream of Chiang Khan, Loei Province, to where it disappears into Laos again at Khong Chiam, Ubon Ratchathani Province. Boat trips were confined to short 1–2 km trips to sand islands off Pakchom, Loei Province, and off Mukdahan, opposite Savannakhet. Most of this stretch falls in Central Laos, but the southern extremity is in South Laos. Counts are not given systematically for this stretch because of the little use made of boats. Nonetheless, enough was seen to give an idea of the community. Also presented under this heading are a few records from Pakxan.

OBSERVATIONS

Observations from all sites are summarised in Appendix 1. Thewlis *et al.* (1998) defined a list of key species for bird conservation in Laos, those of elevated national and/or global conservation concern. This list was updated by Duckworth *et al.* (1999). Observational effort was, and discussion below is, focused on these species.

Ban Latsen, Xiangkhouang

Ban Latsen retained vestiges of the bird community described by David-Beaulieu, and by current-day Lao standards supported a rich selection of raptors (two species each of kite, harrier and falcon, and single each of accipiter and buzzard, as well as a fly-over Osprey). There was no sign of any of the rare or scarce migrant species recorded regularly by David-Beaulieu: Imperial Eagle Aquila heliaca, Lesser Kestrel Falco naumanni (both globally threatened), Amur Falcon F. amurensis and potentially Egyptian Vulture Neophron percnopterus. In February 1999, raptor numbers were low: Common Kestrel was the only species of which more than one individual was seen. In October, raptor numbers were much higher, as would be expected during this passage month, and a fair few were still present in November. There were at least ten harriers in the area in both these months. In April, only three harriers and a single accipiter were seen. The several short visits made were too short a period in which to assess whether the globally threatened species still occur, but even if they do not, the area clearly retains a migrant raptor community superior to that of most of Laos. Long-billed Vulture Gyps indicus (=Slender-billed Vulture G. tenuirostris), White-rumped Vulture *G. bengalensis* and Red-headed Vulture Sarcogyps calvus were all formerly common residents, but seem now to have gone. Ducks were very few, even including the few individuals unidentified to species. It is clear from David-Beaulieu's observations that numbers were not high even 60 years ago, except for Lesser Whistling-ducks, of which we saw none. Suitable habitat remains, but duck numbers are doubtless not building up because of the heavy human

presence (observed directly and evident from numerous signs). Few skulking marsh birds were found, and buffaloes eat most of the potential cover. The Great Bittern on sale at Ban Latsen market in February had been shot, reportedly immediately upon its arrival. The November Black Stork probably avoided a similar fate only because it stayed for less than 30 mins. The October Red-necked Phalarope suffered two attempted shots by a catapult before flying off. Any large or confiding bird would encourage similar attentions. In October, there was a relative richness of herons (although apart from pond herons there was no more than two of any individual species); all except pond herons had gone by November. Whether this reflected onward migration or death is unclear. The variety of waders in 1999–2000 matched well that found by David-Beaulieu, although numbers of most species were small. Particularly notable in a conservation context was the presence of apparently territorial Red-wattled Lapwings, one of only two modern records from North Laos of a formerly widespread breeder. David-Beaulieu found Greyheaded Lapwings among the small flocks of this species; we saw none of the former, although some habitat looked perfect. Intensive trapping of swallows, a phenomenon probably peculiar to the province, is practised widely at Ban Latsen and other areas of similar habitat (Evans et al. 2000b); its effects on wild populations are unknown.

The grassland community may be of most concern in a Lao context, but all medium-sized or large birds of all open habitats, and some small species, are greatly reduced by comparison with David-Beaulieu's (1944) observations. No areas retaining good species richness and populations of the open plains community as described by David-Beaulieu are known from anywhere in Laos. In 1999–2000, only a single each of unidentified buttonquail, Barred Buttonquail and unidentified quail were seen. Barred, Yellow-legged and Small Buttonquails *Turnix sylvatica*, and Japanese and Blue-breasted Quails, were all common or abundant 60 years ago. Chinese Francolin also was formerly abundant; we recorded only one bird. There are no recent records of Short-eared Owl Asio flammeus from Laos; previously it was a regular winter visitor to the open plains, especially the Plain of Jars. The migrant population of Red Collared Dove has probably collapsed (see species account), and Spotted Dove (resident) and Oriental Turtle Dove Streptopelia orientalis (winter visitor) were formerly fairly common; we had no records of either, nor of Common Hoopoe, another formerly common species. All these species are likely to be targeted for food, but the situation with two seed-eating passerines in less clear. Russet Sparrow Passer rutilans and Crested Bunting Melophus lathami were abundant in the post-breeding season and summer respectively at the Plain of Jars (David-Beaulieu 1944); we recorded neither species, but whether we visited at an appropriate season to do so is unclear. If they were in flocks, they have probably succumbed to netting pressures; additionally, David-Beaulieu's description of Scaly-breasted Munia (extremely common throughout) could hardly be applied today; we found the species on only one visit to Latsen, although habitat is ideal for it. Among sturnids, perhaps more vulnerable to capture as cagebirds rather than for eating, Chestnut-tailed and Black-collared Starlings and Common and Whitevented Mynas used to be extremely common in the open habitats. We recorded all species except Common Myna,

but apart from a flock of about 40 Black-collared Starlings and 50 Chestnut-tailed Starlings on one visit, only in small numbers (under a dozen of each species). Asian Koel Eudynamys scolopacea, formerly very common, has disappeared, as have the crows (see species account) on which it is a brood parasite. There were no observations at dusk or dawn in breeding season 1999 or 2000, so we cannot comment on the status of Savanna Nightjar Caprimulgus affinis. It was formerly found to be common. Indian Roller, the only medium-sized bird still relatively common across settled areas elsewhere in Laos, was not found; but it was scarce at this high altitude even in David-Beaulieu's time. Extensive suitable habitat appears to remain for all the foregoing open-country birds, and David-Beaulieu's (1944) discussion of their seasonality and distribution indicates that reasonable numbers would have been expected on at least some of our visits, if the populations were still healthy. Barely restrained hunting/collection is surely responsible for the paucity of sightings.

Ban Phonsavan pinewoods, Xiangkhouang

These woods support, as found by David-Beaulieu (1944), a relatively species-poor but rather specialised community. This presumably results from their botanical simplicity. One species recorded thereabouts by David-Beaulieu (1944) but not found subsequently in Laos, Black-headed Greenfinch, was found commonly in 1999–2000. Hwamei was the only other species found of conservation interest. There were no records of Great Spotted Woodpecker *Dendrocopos major*; it has not been recorded in Laos since David-Beaulieu (1944) recorded it as fairly common above 1,000 m in Xiangkhouang, especially in pines. He noted that the species was shy, and more searching is clearly needed before assessing its present status. Some other characteristic pinewoods species noted by David-Beaulieu (1944), such as Greycrowned Pygmy Woodpecker D. canicapillus, Burmese Shrike Lanius collurioides, Greater Necklaced Laughingthrush Garrulax pectoralis and breeding Russet Sparrow, were also not found. The pinewoods visited were of low stature and generally degraded, and if the species listed require mature pinewoods, this may explain the lack of records. Views from the aeroplane suggested that there was little or no mature pinewood left in the vicinity. In November, the pinewoods supported many Buff-throated Warblers, a species with relatively few Lao records, and the many Great Tits are also noteworthy at a national level.

Montane forest, Xiangkhouang

Although small, the forest on Phou Gnouan supports several higher montane passerines, e.g. Red-tailed Minla, Whiskered Yuhina, Yellow-bellied Fantail and Crested Finchbill. Bar-backed Partridge and Grey Peacock Pheasant were discarded from the list of key species for Laos by Thewlis et al. (1998) and their persistence in this small and very heavily hunted area of forest provides further evidence of their adaptability. There were many flycatchers on passage (especially Verditer and Blue-and-white in October, Slaty-backed in November, and various species in April). A similar concentration of migrant flycatchers in hills was noted in the Nam Hiang area of the Bolaven Plateau in April 1995 (Duckworth et al. 1998a). Such numbers have never been documented in lowland sites in Laos. A good selection

of montane forest birds was recorded in the Ban Phonsavan market. The presence of two species previously unrecorded from Laos (Ashy Wood Pigeon and Purple Cochoa) indicates that other novelties doubtless await the first bird surveyors to visit such forest. The birds in the market were reported to have come from forest towards the Vietnamese border, which we were informed would take about a day to reach. This forest may lie within the Nam Chouan Proposed NBCA, an area rated a high priority for wildlife survey for some years (e.g. Berkmüller *et al.* 1995a,b). Ongoing security concerns have prevented access by outside surveyors.

Harvesting of birds is very heavy in the montane forest. All guides carried (and used) catapults for birds. In November, gunshots were heard every hour or so. The bags of one party contained mainly thrushes. Hunters stated that they took whatever they encountered, but were particularly active in autumn because of all the arriving migrants. Numbers of pigeons, resident forest bulbuls, resident raptors, and other resident birds of the size of drongos or bigger seemed very low. There were many ground traps capable of catching birds such as partridges, robins and pittas; several dozen were in view from some individual points. David-Beaulieu (1944: 103) described a special trap widely operated for Large Niltavas; we saw none of these traps, but did not specifically look. The hundreds of Brown-breasted Bulbuls in the fallow hai are caught opportunistically, but appeared not to be targeted, apparently because it is difficult to get close enough to

Market trading in Ban Phonsavan

Bird trade in Ban Phonsavan was very high compared with markets in South and Central Laos in 1998–1999. Although towns such as Ban Lak (20) and Pakxan had large and visible daily trading in mammals and birds as late as 1996, visible trading has largely stopped through local enforcement of wildlife trading laws. There has probably been little enforcement activity in Ban Phonsavan, as traders were happy to be questioned and photographed. The species observed are listed in Appendix 1. The rate of turnover of wildlife was unclear. Passerines have a limited display life. Unsold birds were plucked and roasted at the end of a day's trading. The display life of species traded live (e.g. Mountain Bamboo Partridge) is probably longer. It is unknown how similar patterns are in other Lao markets, or even in the same market in different seasons: it is clear that any serious study of trading volumes must investigate trading patterns first to allow optimal sampling design. Traders stated that the volume supplied to them varied depending on which days small district and village markets were held.

Muang Xaisomboun

The degraded habitats visited around this town provided little of interest. Some effort in the grassland corroborated the rather low numbers of birds (except Richard's Pipit) found at Ban Latsen. The visit was a little late for recording migrant raptors, although a few were seen. The record of Ratchet-tailed Treepie was in atypical habitat, and the records of Nepal House Martin were further evidence that this species is widespread in Laos, but associated with specific habitat (rugged karst and scarps).

Upper Lao Mekong Channel

Boat-based counts for the entire length of the Mekong boated are given by section in Table 1. Stretches of the Upper Lao Mekong Channel comprise three basic habitat types. Firstly, featureless stretches with a welldefined channel, but few or no marginal sedimentary features, rocks, seasonally inundated vegetation or islands. Secondly, stretches with many and/or large sandbars, but few rocks, and only sparse or patchy perennial vegetation. Thirdly, mosaic stretches, where the stream channel at low-flow season comprises a rich and varied mix of extensive sand and gravel features, reaching out from banks as bars, and as islands, and extensive rock outcrops. These mosaic stretches often have wide colonisation by bushland and/or grassland. Among the bushland, *Homonoia riparia* (Euphorbiaceae) is a predominant species, having been identified from Vientiane Municipality and Pakchom; it appears to occur downstream as far as Khong Chiam, but in eversmaller patches. The channel vegetation of the Mekong in South Lao was characterised by Maxwell (2000); we have not traced any botanical work in the Upper Lao Mekong. The bird communities of these three sorts of habitats differ in their conservation significance and in susceptibility to human influence. Additionally, parts of some islands projected above high-flow water level and supported trees. These rarely submerged habitats look similar to adjacent floodplain vegetation, were not covered well during the present survey, and are not discussed further.

Featureless stretches can be easily travelled and hunted by people. The banks are often heavily settled. Birds persisting in them were generally adaptable species of agricultural areas. In less settled stretches, there were a few River Lapwings along the water margins, and in the far north Plain Martins fed and probably bred. Other key and/or quarry species were largely absent. Long stretches of such habitats presumably coloured the view of Delacour and Greenway (1940a) of the fauna of the upper Mekong as being poor and monotonous, with innumerable River Lapwings, kingfishers, wagtails and rock thrushes, and far from the exuberant avian life of the lower Mekong. River Lapwing was also noted as 'common' on the banks of the Mekong by Bingham and Thompson (1901).

In stretches with open sandy islands, human access is also easy and in most areas quarry species were scarce. Among key species, Small Pratincole was often common in such stretches and occasional Grey Herons were present. Muddier areas supported various migrant waders and, in areas with lower disturbance, River Lapwings. Historical sources (see above) indicate that the large sandbars formerly supported many terns, large waterbirds and other species vulnerable to human disturbance, but these are almost entirely gone. The best areas for large birds seem to be near big towns, notably the Ban Muangmom-Chiang Saen area. Here, although resident species are extinct, there were an impressive number of large, potentially shootable, migrants: egrets, ducks, cormorants, gulls etc and the sole tern of the trip was seen in such an area. Presumably, these birds are less likely to be shot here than in less populated areas, because shooting in border areas is strongly discouraged, and there is more chance of being caught when closer to a town.

Mosaic stretches supported by far the most interesting bird communities and those of highest conservation value. This comes probably partly from habitat heterogeneity (sheer rocks for Wire-tailed Swallow; rocky bushland for Jerdon's Bushchats; sandbars for River Lapwings etc) but doubtless also reflects the difficulties of human access. A well-braided stream through rugged rocks and tangled bushland cannot easily be crossed either by boat or on foot, and quarry species can presumably best survive here. These stretches support almost all remaining key species, and at the highest densities. Nonetheless, populations of sensitive species are seriously depressed even in these habitats. In South Laos such habitat around Seephandon (Champasak Province) has been heavily degraded, but from further south, observations from Cambodia (Poole et al. in prep.) suggest that these habitats would have supported formerly some species now gone, or nearly gone, from the Upper Lao Mekong, e.g. River Tern and resident large waterbirds. Whether such stretches would support other vanishing or vanished species, notably Great Cormorant and Indian Skimmer Rynchops albicollis, is unclear. The limited information from elsewhere in Indochina suggests that such stretches probably would not be suitable for Blackbellied Tern Sterna acuticauda and Little Tern S. albifrons: all recent breeding-season records of these are from sandbar stretches (Poole et al. in prep.). The breedingseason bird community of channel bushland at Paksang (Vientiane Municipality) was described by Duckworth (1996). In the non-breeding season, the similar-looking bushland in Bokeo similarly supported large numbers of a few species of passerines: Red-throated Flycatcher, Oriental Magpie Robin, Common Stonechat, Jerdon's Bushchat, Dusky Warbler, Yellow-browed Warbler, Olivebacked Pipit and Black-faced Bunting. The lack of records in Bokeo of Streak-eared Bulbul Pycnonotus blanfordi, a conspicuous common resident at Paksang, suggests genuine absence or scarcity: North Laos is near the northern extent of its world range (Robson 2000). The newly described Mekong Wagtail Motacilla samveasnae, so typical of channel mosaic habitat further south in the Mekong (Duckworth et al. 2001), was specifically searched for on the April visit, but seems to be absent this far north. While hunters were not openly encountered in channel mosaic, many wader snares were found around Ban Namgnon-Kao, one of which contained a live Pintail Snipe. These were set by the edge of small pools within the mosaic. In the shallow water of larger pools and at the main stream margin were set many hooks baited with small fish. Although these were probably set for large fish, they would also be capable of catching fish-eating birds. Sixty years ago, Delacour and Greenway (1940a) noted such habitat around Ban Houayxai as much more bird-filled, in particular with larger numbers of terns, waders, ardeids and storks. The ghost of such excitement remains.

In this stretch of the Mekong, boat traffic was very heavy; 6–12 boats (sometimes more) typically passed per daylight hour. Craft ranged from ponderous Chinese trading ships through cargo barges to speedboats and wooden pirogues. Manoeuvrable small boats probably facilitate bird harvesting, but by contrast in most areas birds were surprisingly tolerant of large or fast boats, especially around large towns. Disturbance of sandbars, riverbanks and other accessible riverine areas by people

and, in rural areas, stock, was very high along most stretches, as in most of Laos. The least settled stretches seemed to be parts of the Myanmar–Lao border. Mapping village locations would help clarify disturbance levels, as bird behaviour implied that threats come chiefly from people on foot or in small slow village boats, rather than from long-distance boats. Such mapping was not attempted, because it would have eroded time from searching for birds.

Most of the fertile Bokeo floodplain supports intensive cropping, and vegetable gardens also covered much of the seasonally exposed river channel. The few areas outside the cropping cycle were bands of scrub along streams, areas invaded by exotic mimosa (mainly or entirely Mimosa pigra), and, presumably formerly more widespread, tall cane-grass beds. All the latter were heavily trampled by buffaloes, damaged by burning, and usually persisted only as thin strips. Bird species associated with this habitat, such as the Red Avadavat Amandava amandava (never recorded from Laos but known from adjacent parts of Thailand: Boonsong Lekagul and Round 1991), are probably severely threatened. Above the floodplain, vast areas of foothills are swathed in coarse shrubs, ruderals and tough grass, with remaining forest being fragmented and degraded. Land habitats were not visited downstream of Ban Houayxai. A century ago, this part of the Mekong was specifically cited as supporting Wreathed Hornbills Aceros undulatus (Bingham and Thompson 1901), and Delacour and Greenway (1940a) observed hornbills flying over the Mekong. We saw none.

Many quarry species were found in the Upper Lao Mekong, although numbers seemed well below the habitat's probable carrying capacity. River Tern, Great Cormorant, Great Thick-knee, Pied Kingfisher, Largebilled Crow and probably Blue-tailed Bee-eater were reduced to isolated small numbers. Spot-billed Duck, Grey Heron and wintering egrets occurred in larger, but still presumably depressed, numbers and seemed localised to certain stretches. The presence of wintering egrets was notable, because across most of Laos (e.g. Ban Latsen; Appendix 1), egrets occur only on passage. Areas with wintering egrets, such as the northern zone of Xe Pian NBCA (Thewlis et al. 1996) and Ban Sivilai, Thulakhom District, Vientiane Province (Parr and Parr 1998; J.W. K. Parr in litt. 2000), are now exceptional in Laos. River Lapwing was still widespread in the Upper Lao Mekong, although linear densities seemed below carrying capacity. Grey-headed Lapwing and Small Pratincole were numerous in certain stretches and may not have been much reduced in population. Common Sandpiper, Common Greenshank, Kentish Plover, Little Ringed Plover, Blue Rock Thrush, Jerdon's Bushchat, Plain Martin, Wire-tailed Swallow and White Wagtail Motacilla alba alboides were widespread and abundant in some stretches. A return visit in April confirmed that large populations of River Lapwing, Small Pratincole and Jerdon's Bushchat were breeding, and that Plain Martin and Wire-tailed Swallow were present in comparable numbers. No stretch found in winter to hold Great Thick-knee was visited in April, but the species was recorded in a different site. There are also recent records of occasional geese Anser and shelducks Tadorna from the Chiang Saen area, but there is no evidence that these species have ever been regular anywhere in Laos (Duckworth et al. 1999). There is one record of Long-billed Plover *Charadrius placidus* from Sangthong (R. Jelinek in Duckworth *et al.* 1999). This species could easily have been overlooked from boats on the present trip; Delacour and Greenway (1940b) recorded one at Ban Nam Kheung-Kao in winter 1938–1939. The key species that remain, while impressive in a present-day context, are a shadow of the former riverine bird community.

Historically, this community included various large waterbirds. Darter Anhinga melanogaster and Black Ibis Pseudibis papillosa were clearly both common and were recorded by most trips up the Mekong north of Vientiane (Oustalet 1898, Bingham and Thompson 1901, Bangs and van Tyne 1931, Robinson and Kloss 1931, Delacour and Greenway 1940b). Both Greater Adjutant Leptoptilos dubius and Little Cormorant Phalacrocorax niger were recorded by Bingham and Thompson (1901) in adjacent Myanmar, the former explicitly from 'close to the Mekong'. Small numbers of Woolly-necked Stork Ciconia episcopus and Black-necked Ephippiorhynchus asiaticus were recorded by Delacour and Greenway (1940b), and of Painted Stork Mycteria leucocephala by Bangs and van Tyne (1931). Grey-headed Fish Eagle Ichthyophaga ichthyaetus may also have occurred (Oustalet 1898, but see Thewlis et al. 1998). Certain other species may also have declined. Cattle Egret was common between Ban Houayxai and Ban Namkeung-Kao in mid-winter 1938–1939 (Delacour and Greenway 1940b). We found none there, although a few were seen around Ban Muangmom flying to roost in Thailand. Delacour and Greenway (1940b) found Osprey fairly frequent along the Mekong. We saw none along there in 1999-2000, although it is common at the Nam Ngum reservoir (e.g. nine in only a small sector of the reservoir on 6 December 1998: JWD pers. obs.). Delacour and Greenway (1940b) had several Crested Kingfishers Megaceryle lugubris around Ban Namkeung-Kao. We found none.

The chief differences apparent between winter and April in the bird community were increases in Dollarbird, White-throated Kingfisher, Black-capped Kingfisher, Temminck's Stint, egrets and Chinese Pond Heron, and decreases in Grey-headed Lapwing, Common Kestrel, Grey Heron and Barn Swallow. Most of these are well-known migrants, and although there may be an alternative explanation for changes in observed numbers of White-throated Kingfisher, Carey et al. (2001) speculated that there may be long-distance migration of this species in east Asia. A number of other species recorded in April but not winter are likely to be passage migrants (e.g. Brown-headed Gull), while others recorded in winter but not April are likely to be winter visitors (e.g. Northern Pintail). However, samples are too small to assert such patterns.

The conservation importance of this stretch of the Mekong cannot be compared with that lying to the north (largely in China), as no comparative data are available. It seems similar to the stretch from Savannakhet to Pakxe (see Evans et al. 2000a, Evans 2001). South of Pakxe and through Cambodia to Phnom Penh, the Mekong and its major tributaries support a much larger number of globally and regionally threatened species, and populations of most of the sensitive species are healthier (Poole et al. in prep.). The Red River in northern Vietnam is another wide lowland river with much of the channel exposed in the low-flow season.

This river has not been systematically surveyed, although there are various unpublished observations (J. C. Eames verbally 1997; JWD unpublished data) on selected species. There is no information available concerning sandbar breeders, but Pied Kingfisher remains common. Numbers of large migrants are higher along the Red River than in the Mekong. These include Grey Heron (see species account), Common Buzzard, Peregrine Falcon, Common Kestrel, Greylag Goose Anser anser and even, in some winters, flocks of Common Cranes *Grus grus* and occasional Black Storks. These differences may reflect partly the much tighter control over civilian gun use in Vietnam than in Laos over the last decade. Another important factor is the Red River's proximity to the coast; numbers of passage migrant passerines are much higher (10–50 times so) by the Red River in Hanoi than by the Mekong in Vientiane (JWD unpublished data). The nearest other large river, the Chao Phraya in Thailand, is extremely heavily settled and very degraded. Moving even further west, recent observations from the upper Irrawaddy in Myanmar indicate that this wide river, compared with the Mekong and Red River, retains the closest to an original river-channel large bird community, with many cranes, storks, geese, ducks, vultures, terns and others (Anon. 2000, J. Howes verbally 2000).

Dryland areas of Bokeo

No unencroached forest was entered, although various forest species were found in forest fragments on the lower slopes of Phou Phadeng (Appendix 1). The upland rice fields and the harvested floodplain paddies supported a few species not common on the Vientiane Plain, notably Yellow-eyed Babbler. Raptor numbers were low and crows almost extirpated, as throughout much of Laos. Three species unrecorded in Laos in recent years were recorded in the past from open habitats of the far northern floodplains: Black-billed Magpie *Pica* pica, Asian Pied Starling Sturnus contra and Chestnut Munia Lonchura malacca. Asian Pied Starling was recorded exactly in the area visited in 1999-2000, in Ban Houayxai and Ban Namkeung-Kao, by Delacour and Greenway (1940b). A special search was made for this species inland from Ban Namgnon-Kao. This valley had a stream flowing through harvested paddies (at all stages of dampness from open water to dry) interspersed with small areas of scrub. Half the valley was searched, and held approximately 220 buffaloes, cattle and horses but not even a single sturnid was seen. In less heavily settled areas of Laos (e.g. Xe Pian NBCA northern zone), such habitat still supports good numbers of sturnids. The only records of any in Bokeo were of up to 22 White-vented Mynas around Ban Muangmom (December and April) and two Black-collared Starlings near Ban Namgniou in April. This contrasts with the abundance 60 years ago of Chestnut-tailed Starling, Black-collared Starling, Common Myna and Whitevented Myna, which were all specifically noted as common or abundant around Ban Houayxai and/or Ban Namkeung-Kao by Delacour and Greenway (1940b). Starlings and mynas are popular cage-birds across Laos and, as hole-nesters, they are vulnerable to nest robbery and, in areas of intensive agriculture, nest site loss. The Bokeo-Ban Muangyo area is the only part of Laos where Asian Pied Starling was ever recorded; its current national conservation status looks grim. In adjacent parts of north Thailand, the species is uncommon or rare: there are no recent records from Chiang Saen or the plains around Chiang Mai (PDR unpublished data) even though it was formerly very common in the latter site (Deignan 1945).

Hundreds of munias were seen per day, but no Chestnut Munias were found. The lack of records does not necessarily mean they were not present, as many birds could not be identified. In northern Thailand it is now a rare bird, although there are still occasional records from north-central wetlands (PDR unpublished data). The lack of records of Black-billed Magpie was to be expected. The species's population has collapsed in Vietnam (J. C. Eames verbally 1998) and there are only a few records from Thailand (Watola 1993, PDR unpublished data). Although it was not recorded in Bokeo in the past, there is a record from nearby Phongsali (Bangs and van Tyne 1931), and, moreover, a century ago it was abundant in the eastern Southern Shan States, Myanmar, and occurred 'close to the banks of the Mekong' (Bingham and Thompson 1901). Observations in dryland habitats were too limited to merit firm comparisons with those of Delacour and Greenway (1940b), but some differences may be significant. Earlier, Red Junglefowl was abundant in the lowlands but seemed to be very scarce in 1999–2000. Common Hoopoe and two species of green pigeon were formerly common in the lowlands but we saw none. Delacour and Greenway (1940b) made many observations from the montane zone, and many differences between their results and ours (e.g. they found that Little Cuckoo Dove Macropygia ruficeps was common, but we did not record it) may reflect differences in coverage.

Middle Lao Mekong

The land-based observations gave valuable information about this otherwise little-known bird community. A good selection of migrant waders was found, most surprisingly Grey-tailed Tattler. About 50 Common Greenshanks off Tha Uthen (Thailand) on 24 April 2000 was also notable. Breeding waders included a wide distribution for both Little Ringed Plover and Small Pratincole, but River Lapwing and Great Thick-knee were very local. The only terms seen were migrants, of two Chlidonias species. Records of Brahminy Kite from the southern part of the covered stretch are the first recent Lao records away from the far south. Three Pheasant-tailed Jacanas Hydrophasianus chirurgus in breeding plumage, sitting on the Mekong off Tha Uthen on 24 April 2000 were an odd sight; none of the other few recent Lao records comes from a river situation. A colony of House Sparrows nesting in trees (8–10 nests) on the river promenade in Nakhon Phanom (Thailand) is a noteworthy record of this recent colonist. Many birds in the river channel are not visible from the road, especially in the middle of the day. The observations here (and by the same methods for the Upper Lao Mekong) certainly will have missed many, even where the road follows the river closely; as it does for the channel mosaic around and upstream of Sangthong. For example, no Jerdon's Bushchats were seen from the road, even where known to be present in the Upper Lao Mekong. Human use of the river in this stretch is extremely high. Further surveys are needed to allow comparison with the stretches to the north and south.

On the Thai part of the floodplain, and from a Thai perspective, the rarity of Indian Rollers, and the lack of Spotted Dove, Red Collared Dove and White-throated Kingfisher was especially noticeable from at least Nakhon Phanom downstream, in spite of the paddies and lightly wooded country seeming eminently suitable. These medium-sized birds are typically not very common in Laos, presumably due to the high hunting pressure. Nor were there any records of Common Hoopoe, and there was only one of Large-billed Crow. However, compared with Laos, the presence of Common and White-vented Mynas throughout, with a few Black-collared Starlings at a few sites, was encouraging. Bright-headed Cisticolas were generally distributed along the banks. It is unclear if this species was widely overlooked in Laos, or is genuinely a new colonist (Evans 2001).

SELECTED SPECIES ACCOUNTS

Accounts are given for all species providing the first recent record(s) for North, Central, or South Laos, for all species identified as Key Species for conservation in Laos by Duckworth et al. (1999), and for selected others of distributional or conservation interest. Species accounts are split into sections: Upper Lao Mekong includes boat- and land-based observations between Ban Xiangkhok and Louangphabang, and boat-based observations from Paklay to Vientiane. Use of 'winter' and 'April' refers to the two boat trips, with counts detailed in Table 1; other records are given a month and year. Vientiane includes only Mekong channel and bank observations from Vientiane Municipality; stretch 15 of Upper Lao Mekong (see Table 1) falls within the municipality, but the boat-based records are treated under Upper Lao Mekong for comparative purposes. Middle Lao Mekong includes the records (largely made from the Thai bank) from downstream of Vientiane Municipality, as far as Khong Chiam, Ubon Ratchathani Province, Thailand. Xaisomboun includes records from Muang Xaisomboun. Xiangkhouang includes all observations from that province. Species marked † were only found in markets.

JAPANESE QUAIL Coturnix japonica

Little Known in Laos

Vientiane: A male in rich ephemeral growth, Don Chuan, 8 May 1999. **Xiangkhouang**: one quail, not identified to species, in foothill grassland adjacent to Ban Latsen on 9 October 1999.

Substantial time was spent walking through grass at Ban Latsen and in the hills around Muang Xaisomboun looking for quails, with little result. By contrast, David-Beaulieu (1944) described Japanese Quail as a regular and abundant winter visitor to Xiangkhouang, being particularly numerous in November. A major decline seems to have occurred. No long-term trend can be identified in Hong Kong (Carey *et al.* 2001), but a twentieth-century decline has occurred in Japan (Brazil 1991). The bird on Don Chuan had extensive rufous on the face. Common Quail *C. conurnix* sometimes shows some rufous on the face (Grimmett *et al.* 1998) but no specimen at NHM, Tring, U.K. is extensively brick-red. Common Quail has been recorded in South-East Asia

only in west and south Myanmar (Robson 2000): it is presumably not very likely in Laos. As a further complication, Japanese Quails are widely kept in captivity across Laos, and birds may presumably escape occasionally.

BLUE-BREASTED QUAIL Coturnix chinensis

Little Known in Laos

Vientiane: One male and five females in rich ephemeral growth, Don Chuan, 8 May 1999. Xiangkhouang: see Japanese Quail.

There are few recent records of this species in Laos (Duckworth *et al.* 1998a, 1999). It is clearly not regular on Don Chuan in winter, perhaps because herbs are then sparse. It may move locally in response to changing habitat conditions. At least five Yellow-legged Buttonquails and a Japanese Quail were also present in this habitat on the same day. In winter, typically only 0–2 unidentified buttonquails are observed.

Spot-billed Duck Anas poecilorhyncha

Upper Lao Mekong: Totals of c.70 in winter and 34–114 in April (Table 1), in two habitat types: on large open sandy islands near major towns in the far north, and among big areas of channel mosaic. Twenty-six off Chiang Saen on 22 January 2000; seven in the Pakchom sandbar area and seven at 18°06'20"N 101°58'45"E in late April 2000. Vientiane: One at Don Chuan on 7 November 1998. Four birds atop a mid-stream rock off Ban Nasa (Vientiane) on 26 September 1999. River height was at about maximum for the year. At Ban Thadua, 4–15 regularly in February–April 1999, and about 50 on 21 November 1999.

These numbers are well below the potential carrying capacity of the area. Recent Lao records are mostly in the Vientiane area (Duckworth 1996, Thewlis et al. 1996, Duckworth et al. 1998a, Evans et al. 2000a). In both these habitat types, hunting may well be lower than in other stretches (see above). Two forms of this duck, perhaps separate species, may occur in Laos; the observers were usually unable to separate them. Midsummer records along the Mekong (Duckworth 1996) suggest that a form, presumably A. p. haringtonae, is resident, and birds at Ban Thadua in March and April were felt to be this form. Two of four there on 13 February 1999 showed at least some characters of A. (p.) zonorhyncha, which is likely to be a winter visitor. There are no confirmed records of the latter from Laos. Seasonality of occurrence in northern Thailand is unclear (PDR unpublished data).

NORTHERN PINTAIL Anas acuta

Upper Lao Mekong: Four at Chiang Saen on 30 December 1999 (Table 1) and nine there on 22 January 2000. **Vientiane:** 15 flew downstream past Don Chuan on 7 November 1998. A female at Ban Thadua on 20 March 1999.

These are the first recent records for North Laos, although there are also unpublished records from Ban Sivilai (e.g. five on 6 February 1999: L. G. Watson *in litt*. 2000), and records from Central Laos (Evans and Timmins 1998). Historically, small numbers were recorded occasionally in Xiangkhouang and Savannakhet Provinces (David-Beaulieu 1944, 1949–1950).

Table 1. Counts of some riverine bird species from the Upper Lao Mekong.

Stretch number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Rec
Length (km)	88	17.5	61	38	103.5	28	41	30.5	41	26	67	59.5	28.5	19	53.5	
Number of trips in winter	2	2	2	1	1	1	1	1	3	3	1	1	1	1	1	
Number of trips in spring	2	2	2	1	1	1	1	1	1	1	0	0	0	0	0	
Best boat type in winter	fast	slow	slow	tour	tour	tour	tour	tour	slow	slow	slow	slow	slow	slow	slow	
Best boat type in spring	slow	slow	slow	tour	tour	tour	tour	tour	tour	tour	-	-	-	-	31011	
Species Species	310 W	310 W	310W	tour	tour	tout	toui	tour	tour	tour						
SPOT-BILLED DUCK	c40	24									2		3			fair
SPOT-BILLED DUCK	1-80	22	12	_	_	_	-	_	_	_	n/c	n/c	n/c	n/c	n/c	1411
NORTHERN PINTAIL, W	_	4						_			_	_			_	fair
INDIAN ROLLER	1	7	1		_	_	_	2			2	2	3	2	6	
INDIAN KULLER	1	_	1	-		1	_	_	-		n/c	n/c	n/c	3 n/c	n/c	fair
D	4				1	2	5	1								£ - :
Dollarbird, s	4	-	-	-	1	3)	1	-	-	n/c	n/c	n/c	n/c	n/c	fair
Common Kingfisher, s	-	-	-	-	-	1	**	-	-	-	n/c	n/c	n/c	n/c	n/c	fair
W'HITE-THROATED KINGEISHER	3	-	1	-	2	1	1	2	1	-	-	-	1	-	-	fair
	7	3	5	2	6	3	9	3	3	-	n/c	n/c	n/c	n/c	n/c	
Black-capped Kingfisher	-	-	-	-	1	-	-	-	1	*	-	-	•	-	-	fair
	-	-	1	-	9	6	26	9	22	-	n/c	n/c	n/c	n/c	n/c	
PIED KINGFISHER, S	-	-	1	-	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	fair
GREEN BEE-EATER, W	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	poor
[Blue-tailed Bee-eater], s	3		_	_	_	_	_	_	_	-	n/c	n/c	n/c	n/c	n/c	poor
CHESTNUT-HEADED BEE-EATER, S	2										n/c	n/c	n/c	n/c	n/c	poor
	ث	-	-	-	-	-	-			_			II/C			•
Greater Coucal	-	-	-	- 1	-	1	2	-	-	-	2 n/c	n/c	n/c	n/c	n/c	poor
D D -	-	-	-	1	-	1	2	-	-	-						
Red-breasted Parakeet, w	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	poor
SWIFTLET SP., S	-	-	-	-	2	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	poor
Brown-backed Needletail, s	-	-	-	-	-	4	-	-	-	-	n/c	n/c	n/c	n/c	n/c	poor
WHITE-BREASTED WATERHEN, S	-	1	-	-	-	1	-	1	-	-	n/c	n/c	n/c	n/c	n/c	poor
[PINTAIL SNIPE], S	1	_	_	_	_	_	_	_	_	_	n/c	n/c	n/c	n/c	n/c	poor
SPOTTED REDSHANK		25						_	_	_	_			_	67	poor
STOTTED REDSHARK	_	40+	_	_	_	_	_	_	_	_	n/c	n/c	n/c	n/c	n/c	poor
Marsh Sandpiper, s	_	1								_	n/c	n/c	n/c	n/c	n/c	noor
		1	-	-	_	-	-	-	-	-	11/ C		11/0			poor
Common Greenshank	1?	7 4	9 19	5	2 4	-	-	-	-	_	n/c	n/c	n/c	n/c	l n/c	poor
	_					-	-	-	-	-						
COMMON SANDPIPER	1 1	1	1 10	5 7	1	1	l 1	-	1	-	n/c	4 n/c	l n/c	n/c	l n/c	poor
T	1	1		,	1	_	1	-	-							
TEMMINCK'S STINT, S	-	9	7	1		-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	poor
Great Thick-knee, w	-	-	-	-	-	-	-	-	-	-	4(2)	-	-	-	-	fair
Black-winged Stilt, s	-	-	4	-	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	fair
LITTLE RINGED PLOVER	1	_	4	1	7 (6)	_	_	_	3 (2)	3 (2)	С	С	С	С	С	poor
	-	4(2)	8 (5)	2(2)	1	-	-	-	1	2(2)	n/c	n/c	n/c	n/c	n/c	
Kentish Plover	-	_	8	-	_	-	_	_	**	1	_	_	_	-	-	poor
	-	1	4	-	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	
SMALL PLOVER SP.	-	1	4	3	_	-	-	-	2	_	С	С	С	С	С	poor
	-	-	4	2(2)	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	
RIVER LAPWING	25 (13)	_	17 (5)	6 (4)	13 (6)	6 (2)	9 (5)	_	8 (2)	3 (2)	30 (14)	3 (2)	6 (3)	_	3 (1)	fair
	33 (23)	2(2)	6 (4)		15 (12)	2 (2)	10 (6)	2(2)	3 (2)	5 (4)	n/c	n/c	n/c	n/c	n/c	
GREY-HEADED LAPWING	1	_	33	4	1	_	_	_	_	_	10	6	1	-	_	fair
	-	-	11	4	-	-	-	-	-	1	n/c	n/c	n/c	n/c	n/c	
LAPWING SP., W	2	_	4	_	1	_	_	_	_	_	2	2	_	_	_	poor
SMALL PRATINCOLE	1	840	200	230			_		_	34	36	61	18	_	103	poor
SHALL I KHINOOLE	39	380	202	315	_	_	_	_	_	2	n/c	n/c	n/c	n/c	n/c	poor
WADER SP(P).	40	15	3				1			15	9	-	-	-	-	DOOL
maden of (1).	40	20	2	_	_	_	-	-		- 15	n/c	n/c	n/c	n/c	n/c	poor
Brown-Headed Gull, s	10	9	2								n/c	n/c	n/c	n/c	n/c	fair
	-	7	_	_	-		-	_	-	_	11/ C	11/ C	11/ C			
Herring-type gull, w	-	1	-	-	_	-	-	-	~	-	-	-	-	-	1	fair
RIVER TERN, W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	fair
Crested Serpent Eagle	-	-	-	-	-	-	3	2	1	-	-	-	-	-	-	poor
	-	-	-	-	-	1	-	-	-	-	n/c	n/c	n/c	n/c	n/c	
SHIKRA	-	-	-	**	-	-	-	2	-	1	-	-	-	-	-	poor
JHINA											,	,		1	-1-	
onices	-	-	-	1	-	-	-	2	l	-	n/c	n/c	n/c	n/c	n/c	
Accipiter sp.	-	-	-	l -	-	-	-	2	1	-	n/c l	n/c -	n/c -	n/c ~	n/c	poor

KESTREL SP.	-	-	2	l	l	-	-	-	-	-	-	-	_	-	-	роог
	-	**	-	-	1	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	
Peregrine Falcon, w	-	-	-	I	-	-	-	-	-	-	-	-	-	-	-	poor
GREAT CORMORANT, W	-	2	-	-	-	-	-	-	-	1	-	-	-	-	-	fair
LITTLE EGRET	- 1	4	5 8	- 1	-	- 5	-	-	-	30	n/c	n/c	n/c	n/c	1? n/c	fair
GREY HERON	7	5	5		_	-	_	_	1	-	2	l	-	-	3	fair
OREI HERON	ì	-	ĺ	1	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	1011
Great Egret	-	[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	fair
	-	4	4	-	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	
EGRET SP.	-	1 2	10 2	-	-	-	-	-	-	-		-	-	-	-/-	fair
Como Farma	1	2		-	-	-	-	-	-	25	n/c	n/c	n/c	n/c	n/c	C+:
CATTLE EGRET, S	1	1	2	-	1	-	1.0	1	7	25	n/c	n/c	n/c	n/c	n/c	fair
CHINESE POND HERON, S	1	1	1	-	1	5	10	1	7	1	n/c	n/c	n/c	n/c	n/c	fair
Pond Heron Sp.	- 1	1	1 -		6 2	-	1	-	-	-	n/c	2 n/c	3 n/c	n/c	l n/c	fair
LITTLE HERON	2	-	2	_	2	_	_	_	_	_	-	-	_	-	-	poor
Direct Tables	2	-	-	-	2	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	Poor
Large-billed Crow	2(1)	-	-	-	-	-	-	-	-	-	2 (1)	-	-	-	-	poor
	2 (2)	-	-	-	-	2 (2)	-	-	-	-	n/c	n/c	n/c	n/c	n/c	
BLUE ROCK THRUSH	C 1	-	-	1	4	1	1	-	6	2	/-	5	5	2	1	poor
0 0	1	-	1	-	4	6	1	2	6	2	n/c	n/c	n/c	n/c	n/c	
COMMON STONECHAT	-	-	-	-	-	-	- 1	-	-	-	- /-	1		- /-	-	poor
D. D	-	-	-	-	2	-	1	-	2	-	n/c	n/c	n/c	n/c	n/c	
PIED BUSHCHAT, W	-	-	-	-	-	-	-	-	-	-	-	2	-	-	_	poor
JERDON'S BUSHCHAT	9	-	3	1	2	-	-	1	1 2	8	10 n/c	34 n/c	8 n/c	8 n/c	2 n/c	poor
BLACK-COLLARED STARLING, W	-	_	_	_	_	_	_	_	3 (1)	-	-	-	-	-	-	poor
WHITE-VENTED MYNA, S	_	8	_	_	_	_	_	_	J (1)	_	n/c	n/c	n/c	n/c	n/c	poor
PLAIN MARTIN	c300	3	2	20	23	1	13	7	10	_	11	16	5	2	-	fair
A EU CAY ATALAN ALLY	121	1	4	2	_	-	1	3	4	-	n/c	n/c	n/c	n/c	n/c	1411
BARN SWALLOW	40	105	9	-	12	-	-	2	20	3	15	8	-	-	3	fair
	13	-	16	-	6	-	2	-	4	4	n/c	n/c	n/c	n/c	n/c	
Wire-tailed Swallow	-	-	-	-	-	2	-	1	6	6	-	28	9	2	1	fair
	-	-	-	-	-	-	-	2	1	1	n/c	n/c	n/c	n/c	n/c	
RED-RUMPED/STRIATED SWALLOW	2	-	-	-	-	-	-	-	-	4	n/c	n/c	15 n/c	n/c	n/c	poor
House Martin Sp., S	_		1							-	n/c	n/c	n/c	n/c	n/c	poor
HIRUNDINE SP.	5	_	1	_	_	_	1	1	2	_	-	-	-	-	-	роог
AIRONDINE SI.	1	-	200	6	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	Poor
WHITE WAGTAIL	С	_	_	6	С	3	1	1	12	С	С	С	С	С	С	fair
	6	-	2	2	15	2	-	-	3	-	n/c	n/c	n/c	n/c	n/c	
CITRINE WAGTAIL, 8	-	1	36	-	-	-	-	-	-	-	n/c	n/c	n/c	n/c	n/c	poor
YELLOW WAGTAIL, S	-	-	4	1	-	_	-	-	-	-	n/c	n/c	n/c	n/c	n/c	poor

Stretch numbers: 1, Ban Xiangkhok – Ban Muangmom^M; 2, Ban Muangmom – Ban Tonpheung^T; 3, Ban Tonpheung – Ban Khonkeo^T; 4, Ban Houayxai – Ban Paktha^T; 5, Ban Paktha – Muang Pakbeng^L; 6, Muang Pakbeng – Ban Thaxoang^L; 7, Ban Thaxoang – Ban Bo^L; 8, Ban Bo – Ban Lay^L; 9, Ban Lay – Pak Ou^L; 10, Pak Ou – Louangphabang^L; 11, Paklay – unnamed village at Xaignabouli/Thai border^L; 12, Xaignabouli/Thai border – Ban Vang^T; 13, Ban Vang – Don Chan^T; 14, Don Chan – Paksang^T; 15, Paksang – Vientiane^T (^L indicates that much or all of the stretch has Laos on both banks; ^T indicates that much or all of the stretch has Myanmar on one bank).

Boat-type: fast, speedboat, with limited observation potential; tour, tourist barge, speed adequately slow but not able to scan above or to all forward angles; slow, slow boat with observer sat in bows and able to scan to all forward angles and above. 'Best' means the boat type that yielded the best results in cases where more than one pass was made using more than one boat type.

Rec: this refers to the comprehensiveness of recording for each species, i.e. it estimates the proportion of birds present that were actually recorded. In some stretches heavy braiding of the channel meant that some birds were not even potentially visible. In most stretches limited attention was paid to the sky and so high-flying aerial species were under-recorded. Small, cryptic, skulking and/or bold species unlikely to flush were in general recorded less efficiently that larger, easily visible, prominently perching, flying and/or flushing species.

Counts for species give the maximum on any trip through the stretch, the upper row for winter (27 December 1999 – 8 January 2000), the lower row for spring (7-11 April 2000); species recorded in only one of the two seasons are indicated 'w' (winter) or 's' (spring). In stretch 3 there were significant land-based observations and where, for large waders (shanks, lapwings, Small Pratincole) these exceeded the count from the boat, the land-based observations are included. 'c' indicates that the species was present but not counted in the stretch; most such species were common. Where two figures are given, the first is the number of individuals and the second (in parentheses) the number of groups. 'n/c' means that the stretch was not counted in the relevant season; a dash (-) that although the stretch was counted, no birds were seen. Particularly for smaller and/or less conspicuous species, the lack of records should not be taken to imply absence. Rows for 'sp.' exclude counts of birds identified to species.

Key species (as listed in Duckworth et al. 1999) are in bold. Records in square brackets represent provisional identifications.

Garganey Anas querquedula

Xiangkhouang: At Ban Latsen, 11–18 on 9 October 1999.

This is the first recent published record for North Laos, although it is by far the most frequently recorded *Anas* species in South and Central Laos (Thewlis *et al.* 1996, Duckworth *et al.* 1998, Evans and Timmins 1998). Additionally, PD recorded the species (one in a small flock of Spot-billed Ducks) upstream of Vientiane on the Mekong in December 1996. Historically, Garganeys were found mixed in with Common Teal flocks in Xiangkhouang and Savannakhet Provinces, but were less numerous (David-Beaulieu 1944, 1949–1950); a reversal of today's ratio.

COMMON TEAL Anas crecca

Vientiane: Two pairs at Ban Thadua on 13 February 1999. **Xiangkhouang**: A male at Ban Latsen on 13–14 February 1999.

The only other recent record for North Laos was overlooked by Duckworth *et al.* (1999): up to 10 by the Mekong in Vientiane on 9–11 December 1995 (Dymond 1995). Historically, the species occurred in Xiangkhouang in flocks of up to 40; Ban Latsen was one of several particularly good places for the bird (Delacour and Jabouille 1927, David-Beaulieu 1944). It seems unlikely that such numbers now occur in the province. It also seems to have been rather commoner elsewhere in Laos than it is now, e.g. it visited Savannakhet Province annually in flocks of up to 20–30, although it was regular in only one site (Robinson and Kloss 1931, David-Beaulieu 1949–1950, Evans and Timmins 1998).

EURASIAN WRYNECK Jynx torquilla

Upper Lao Mekong: one at Ban Namgniou on 9 April 2000. **Xaisomboun**: One on 15 November 1999 at about 1,200 m. **Xiangkhouang**: One at Ban Latsen on 27 November 1999.

All records were in patchy coarse scrub. The only other recent records of this species in Laos appear to be singles in Vientiane on 22 November 1992 (Thewlis *et al.* 1996, R. J. Wilkinson *in litt.* 2000) and 2–3 km outside Salavan on 23 February 1999 (A. J. Stones *in litt.* 2000). David-Beaulieu (1944) described it as a very common winter visitor to cleared areas, but there are few other historical records (Delacour and Jabouille 1927, David-Beaulieu 1949–1950). There are too few recent observations in suitable habitat to tell whether David-Beaulieu's description remains apt.

COMMON HOOPOE Upupa epops

Vientiane: one near Ban Thadua on 25 March 1999.

This species was a very common resident throughout Xiangkhouang (David-Beaulieu 1944) and was common in the Upper Mekong (Delacour and Greenway 1940b), but we saw none in either area. It was recorded widely, often as common, elsewhere across Laos historically (Delacour 1929, Bangs and van Tyne 1931, Engelbach 1932, David-Beaulieu 1949–1950). It is now very scarce across most of the country. Occasional birds have been recorded widely in the South, but the species has been assessed as frequent or common only in the lowlands of Dong Hua Sao NBCA in summer 1993, the deciduous dipterocarp forest of the Xe Kong

plains of Xe Pian NBCA in spring 1993, the deciduous dipterocarp forest of the lowlands of Xe Bang-Nouan NBCA in summer 1994, the Bolaven pinewoods in spring 1995, the rocky savanna of Phou Xiang Thong NBCA in spring 1996, and the deciduous dipterocarp forest of Dong Khanthung proposed NBCA in spring and July 1998. These are all extensive open forest–grassland mixes (Thewlis *et al.* 1996, Evans and Timmins 1998, Duckworth *et al.* 1998, Cunningham 1998, Round 1998, Evans *et al.* 2000a, Evans 2001, Davidson in prep., W. G. Robichaud and R. J. Tizard *in litt.* 2000, PDR unpublished data).

There are very few recent records from North or (except Xe Bang-Nouan NBCA) Central Laos. For example, there are no sightings on the Nakai Plateau, around Phou Khaokhoay NBCA or in Sangthong (Duckworth 1996, Evans and Timmins 1998, Duckworth et al. 1998, J.W. K. Parr in litt. 2000), despite substantial time spent in open degraded habitats such as support the species in Thailand. Only at one site in the North has the species recently been found to be frequent: in open mixed deciduous forest, admixed with some pine, at 1,000–1,200 m in Nam Et and Phou Louey NBCAs, counts of up to at least four were recorded on nine dates between 22 March and 9 May, with birds sometimes in song (Davidson in prep., PD unpublished data). There are three other recent records from the North: at two localities in Phongsali Province, single birds on 23-28 March 1996 (W. G. Robichaud in litt. 2000); and two near Louang-Namtha on 10 February 1997, in very degraded roadside deciduous regrowth at 1,050 m (PD unpublished data). The only evidence that the resident population referred to by David-Beaulieu is not extinct across North Laos comes thus from Nam Et and Phou Louey, with other recent records plausibly referring to migrants. Clearly, all observations of Common Hoopoes from North Laos should be documented, and the breeding population may well merit being considered At Risk in Laos.

PIED KINGFISHER Ceryle rudis

At Risk in Laos

Upper Lao Mekong: One at Ban Donkhao on 7 April 2000.

This species was common in the upper Mekong (Delacour and Greenway 1940b) and reportedly still occurred in the 1990s, at least around Chiang Saen (Heath 1996, C. M. Poole verbally 1999). Although it is odd that the species was not mentioned from the Upper Lao Mekong by Bangs and van Tyne (1931), there is no doubt that Pied Kingfisher underwent one of the steepest historical declines of any Lao bird (Thewlis *et al.* 1998, Duckworth *et al.* 1999 and references therein).

BLUE-TAILED BEE-EATER Merops philippinus

Potentially At Risk in Laos

Upper Lao Mekong: A group of two and a single on 7 April 2000, in mosaic habitat upstream of Ban Muangmom (provisionally identified). In late April 2000, 1–2 at 18°02'30"N 101°46'24"E near Pakchom sandbar, and at 18°06'20"N 101°58'40"E. Middle Lao Mekong: Four bee-eater sp. at Chanuman in April 2000.

This species occurs in small numbers in the breeding season at Sangthong (Duckworth 1996). The lack of records on the winter visit (and also in the winter trip of Delacour and Greenway 1940b) might reflect seasonal absence. The very few observations in April suggest that populations are not healthy in this part of Laos. The species was recorded breeding (8–10 active nest holes, adults feeding young) between Ban Phakam and Ban Phaoy (untraced; but within two hours' boat journey, south of Ban Houayxai), on 21 May 1966 (Dickinson 1966). The extensive suitable habitat of the Upper Lao Mekong would support much higher numbers than we observed, if bird densities in similar habitat in Cambodia (Poole *et al.* in prep.) can be used as a guide.

BARN OWL Tyto alba

Little Known in Laos

Vientiane: One along the Mekong bank midway between the town centre and airport at dusk on 16 May 2000. The bird was in a palm tree just off the balcony of an occupied house; after flying around calling, it headed out over the river.

Given this bird's behaviour, it is perhaps likely to have been an escaped cage-bird. These (collected from wild nests) provide most of the few recent Lao records (Duckworth *et al.* 1999). It is a conspicuous urban bird in e.g. Hanoi, Bangkok and Phnom Penh, but not in modern-day Laos (although it was historically so: David-Beaulieu 1944, 1949–1950).

ASHY WOOD PIGEON Columba pulchricollis†

Little Known in Laos

Xiangkhouang: A freshly killed individual in Ban Phonsavan market on 12 February 1999 (photographed).

This is the first record for Laos. The species occurs in Thailand where it is a local and uncommon resident in forested mountains of the far north (Boonsong Lekagul and Round 1991). The first record for Vietnam was a single in August 1998 on Fan Si Pan mountain, Hoang Lien Nature Reserve (Tordoff 2002, this issue).

Red Collared Dove Streptopelia tranquebarica

Xiangkhouang: At Ban Latsen, two and six on 9 and 12 October 1999 respectively; and a pair on 18 April 2000.

These are the first recent records of the species from North Laos. Subsequently, Brooks and Sørensen (2001) saw two caged individuals in Xam-Nua market, in mid-October 2000. All other birds in this market were plausibly of local origin and it seems likely that these were as well. By contrast, David-Beaulieu (1944) documented a huge autumn arrival to Xiangkhouang. While the species remains a common breeder in a restricted part of South Laos (Thewlis et al. 1996, Duckworth et al. 1998), it seems that the migrant population has decreased. Formerly in Xiangkhouang the species was abundant in August and September, occurring in flocks of up to 100, widely distributed in level areas, especially in the Plain of Jars. However, records at other seasons were said to be unusual (David-Beaulieu 1944), and as we made few observations in the two months, the magnitude of decline cannot be confirmed. The species is primarily a September/ October passage migrant through Hong Kong, but also occurs in winter and spring. It also appears to be scarcer now than in the 1930s (Carey et al. 2001).

Peaceful Dove Geopelia striata

Vientiane: Up to 12 (some singing) in open mimosadominated sandbar scrub near Ban Thadua, 28 February–25 March 1999. Heard singing from bushes adjacent to Don Chuan on 24 November 1999.

This species was first recorded for Laos on 17 October 1998 (Vientiane; TDE in Duckworth *et al.* 1999). A population descended from the introduced continental Thailand population is becoming established (Davidson in prep.), and clearly uses channel habitat.

Wedge-Tailed Green Pigeon Treron sphenura

Vientiane: A female in trees on the Mekong bank by Don Chuan (165 m) on 21 November 1998.

Green pigeons are not commonly kept in cages in Laos, if at all, and although they are often traded alive such birds usually have their remiges pulled out. This individual (watched for over 30 minutes) was presumably a natural wanderer. In South-East Asia it is primarily a hill and montane species (Boonsong Lekagul and Round 1991, Robson 2000) and all other Lao records are from hill areas (Duckworth *et al.* 1998a, PD unpublished data).

Grey-tailed Tattler Heteroscelus brevipes

Middle Lao Mekong: One, in mainly non-breeding plumage, on an island off Mukdahan on 26 April 2000.

This is the first record for Laos, and probably the first record for inland South-East Asia, of a species which is a scarce to relatively common passage migrant on the region's coast. The bird was observed closely for 30 minutes, and the observer (PDR) is very familiar with the species from coastal Thailand.

RED-NECKED STINT Calidris ruficollis

Xiangkhouang: A juvenile at Ban Latsen on 9 October 1999.

The few records of this species from Laos come from the South and Centre (Evans *et al.* 2000a, Evans 2001), but it has been provisionally recorded in Vientiane (Duckworth *et al.* 1999). This record at 1,120 m, the first Lao record away from the Mekong, is at significantly higher altitude than the 450 m maximum in Robson (2000).

Dunlin Calidris alpina

Upper Lao Mekong: One at Ban Namgniou on 30 December 1999, and two at Ban Mai island (Vientiane) on 8 January 2000. **Vientiane**: At Don Chuan, one on 7 November 1998, and five within a flock of 490 plovers (largely or entirely Kentish Plover) on 24 November 1999.

The first record for Laos was only in 1995 (Duckworth *et al.* 1998a) and there have been relatively few since (Duckworth *et al.* 1999, Evans *et al.* 2000a). The species is mapped in Boonsong Lekagul and Round (1991) only for a short stretch of the Thai Mekong, in the far north of Thailand. However, these records suggest that it may be more common and widespread.

Curlew Sandpiper Calidris ferruginea

Vientiane: Two on Don Chuan on 22 October 1999. **Middle Lao Mekong**: Two on an island off Mukdahan on 26 April 2000.

These are the first records from North and Central Laos respectively; the only previous record from Laos is from the South in 1996 (Evans *et al.* 2000a).

RED-NECKED PHALAROPE Phalaropus lobatus

Vientiane: Three birds still largely in non-breeding plumage on 11 April 1999, 4 km upstream of the Lao—Thai bridge. **Xiangkhouang**: A first-winter bird at Ban Latsen on 12 October 1999.

These are the first records from North Laos. The only previous Lao records come from the southern Mekong in spring 1996 (Evans *et al.* 2000a). Robson (2000) categorised the species as occurring in 'lowlands' in South-East Asia. The Latsen record, at about 1,120 m, recalls the regular October passage of the species through the Kelabit uplands of Borneo (Smythies 1981).

GREATER PAINTED-SNIPE Rostratula benghalensis

Upper Lao Mekong: Single male and female at Ban Khonkeo on 6 April 2000, and 1–2 pair(s) at Ban Namgniou on 9 April 2000.

All birds were in channel mosaic. The lack of records from the same areas of the Upper Lao Mekong in winter 1999–2000 suggests that those in April had moved into the area, but whether from locally or as longer-distance migrants is unclear. Long-distance movement does take place in eastern Asia: in Hong Kong the species is primarily a passage migrant and winter visitor (Carey et al. 2001). These are the first recent records from North Laos, the only other recent Lao records being from the northern zone of Xe Pian NBCA in South Laos (Thewlis et al. 1996). Historical records came from a wider area. The species was fairly common, though localised, in Indochina, including parts of Xiangkhouang (David-Beaulieu 1944), where we found no suitable habitat in 1999–2000. In Savannakhet Province, David-Beaulieu (1949-1950) suspected it was commoner than his few observations would suggest, while in South Laos Engelbach (1932) noted small numbers around Salavan, specifically at wader passage seasons. As a skulking species, it is difficult assess population trends, but it has clearly declined greatly in Hong Kong (Carey et al. 2001), and may well have done so also in Laos.

Great Thick-knee *Esacus recurvirostris* At Risk in Laos

Upper Lao Mekong: Two groups of two, downstream of Paklay, after 25 and 35 minutes' travel respectively, on 7 January 2000 (Table 1). The birds were in a vast stretch of channel mosaic. One at Pakchom sandbar on 21–22 April 2000, in similar habitat. Vientiane: Two loafing atop a rock in the Mekong off Ban Nasa on 26 September 1999. River height was at about maximum. Middle Lao Mekong: Four off Hat Sung, Khemmaraj District, opposite the mouth of the Xe Bang-Nouan, on 26 April 2000; the same locality as recorded in 1997 by Evans (2001).

This species was formerly much more common in Laos (Thewlis *et al.* 1998 and references therein). The main Lao population is in the Mekong and Xe Kong of the far south, but it clearly persists patchily in the North. It may even be more widespread than these records indicate, because it is probably more easily overlooked from a boat than its size might suggest (based on observations in Cambodia: Poole *et al.* in prep.). The Hat Sung site was crowded with people at 16h00

(picnickers and trippers as well as fishermen). People were drifting homeward and then about 17h30 three thick-knees flew across from the Lao side, landing on a sandbank on the Thai side, where they remained even though there were still people within 100 m or so. The rough broken country adjacent to sandbars could enable them to hide. Certainly, persistence in the face of incidental disturbance will be essential in allowing the birds to survive in the Lao–Thai Mekong. Even if active persecution can be reduced, incidental disturbance will surely be very high, well into the foreseeable future.

GREY PLOVER Pluvialis squatarola

Vientiane: Two (unaged) on Don Chuan on 7 November 1998.

This is the only Lao record; the species is mainly coastal in South-East Asia (Robson 2000).

Greater Sand Plover Charadrius leschenaultii

Vientiane: One in winter plumage, opposite Nong Khai, on 24 March 1999. Eight unidentified sand plovers nearby on 11 April 1999. Middle Lao Mekong: Two unidentified sand plovers seen in flight off Mukdahan on 26 April 2000.

The few previous records of sand plovers in Laos are detailed in Thewlis *et al.* (1996). Additionally, W. W. Thomas (*in litt.* 1999) found Lesser Sand Plover *C. mongolus* to be a scarce spring migrant through Vientiane in the early 1960s. This is the first record of Greater for North Laos.

RIVER LAPWING Vanellus duvaucelii

At Risk in Laos

Upper Lao Mekong: A total of c. 130 was seen in winter (88 in the northern stretch) and 81 in the northern stretch in April (Table 1). Although occurring right from the far north downstream almost to Vientiane, birds were not regularly spaced. In certain stretches, groups (usually of two) were seen every few minutes of travel, while other stretches were devoid of records for hours. In the northern stretch, the winter distribution pattern was replicated in April, suggesting that even in late December birds were largely spaced out according to breeding distribution. Most were in channel mosaic, where they loafed and fed on the sandy parts. Numbers were lower in other habitat types. Counts at both seasons were probably major underestimates of birds actually present, because much available habitat could not be scanned (through being too distant, the boat being far too fast, or likely perching areas simply being out of view). The correspondence in numbers during both seasons is probably due to the same channel being taken each time, so that areas difficult to check, or not covered, in the first trip were also not well covered on the second. This consistency certainly does not indicate that the counts were comprehensive. Using slower boats along the Mekong tributaries in the breeding season, counts can be almost 100% accurate (Duckworth et al. 1998b). The Mekong is much wider, in most of its stretches, than the tributaries. Vientiane: Eight atop a rock in the Mekong off Ban Nasa on 26 September 1999. River height was at about maximum. The birds spent at least an hour of the afternoon just loafing on the rock amid the swirling current. One near there in late April 2000. Middle Lao Mekong: 1–2 opposite the mouth of the Xe Bang-Nouan in late April 2000.

In the Nam Theun catchment (Central Laos) River Lapwing numbers are reduced by human pressure (Duckworth et al. 1998b). Much of the Upper Lao Mekong supports high heavy boat traffic and many villages, so it was surprising to find this species in such numbers. Possible reasons include: habituation to the harmless, although noisy, speedboats and transport barges; and the width of the channel, especially in mosaic areas, which means that there probably is, at any given moment, somewhere of limited disturbance for birds to feed. It is nonetheless likely that the population is below the carrying capacity. Discounting the 66–75% of the Mekong travelled which contained few suitable channel features for the species, about 230-350 km of prime habitat were traversed. Densities of 0.5–4 birds per linear km have been recorded in narrower rivers in suitable habitat of Indochina (Duckworth et al. 1998b, Timmins and Men Soriyun 1998). On this basis, 115–1,400 birds would have been expected in the surveyed stretch, probably to be multiplied by some factor to reflect the braiding and generally two-dimensional nature of the mainstream Mekong compared with its tributaries. Actual figures were at the lower end of this (very conservative) range; the unknown proportion overlooked prevents more precise comment.

The midwinter Upper Lao Mekong survey fell before the start of breeding activity, although most birds had clearly paired and few flocks were seen. By April, territorial aggression and defence was frequently observed and birds were clearly breeding in most if not all areas in which they were observed, including such heavily disturbed areas as Ban Khonkeo and Ban Namgniou. It should not necessarily be assumed that the observed birds can breed successfully enough to be a self-sustaining population.

Grey-Headed Lapwing Vanellus cinereus

Potentially At Risk in Laos

Upper Lao Mekong: Totals of 56 and 16 in winter and April respectively (Table 1). Five at Chiang Khan island on 20 April 2000. **Vientiane**: two on Don Chuan on 7 February 1998.

These results suggest that the Upper Lao Mekong should be added to the important wintering area listed in Duckworth *et al.* (1999). Birds seemed faithful to certain stretches, rather than roaming up and down the river, although there is clearly some mobility: e.g. a sandy spit at Ban Namgnon-Kao held on successive visits, 24, c.25, 9 and 16 birds on 27, 28, 30 December and 2 January respectively. Birds used all sorts of channel habitat, although there were few in channel mosaic stretches, and many birds were on earth rather than sand. Probably a rather lower proportion was recorded than for River Lapwing, as birds were often perched in or close to salad gardens or natural ephemeral growth, and they blended in better with the brown earth.

RED-WATTLED LAPWING Vanellus indicus

Xiangkhouang: 2–3 birds at Ban Latsen on 27 November 1999; two defended territories on 18 April 2000.

The status of this species in North Laos is of great concern. The only other recent records are of a single in Nam Ngum reservoir on 6 December 1998 (JWD unpublished data) and occasional sightings, perhaps breeding, around Ban Nakhay, Phou Khaokhoay

NBCA, in 1997–1999 (J. W. K. Parr verbally 1999). Yet David-Beaulieu (1944) described the species in Xiangkhouang as a very common breeding resident throughout the province, at all altitudes: a description totally inapplicable today. In the upper Mekong 60 years ago, Delacour and Greenway (1940b) had found the species generally common, notably so around Ban Houayxai. It was also recorded in the far north, around Ban Muangyo (Bangs and van Tyne 1931). As a large, conspicuous ground nester favouring habitat suitable for agriculture, it would not be surprising if this species was extirpated from large parts of North Laos. It remains common in the South and, locally, the Centre (Thewlis et al. 1996, Duckworth et al. 1998, Evans and Timmins 1998, Evans et al. 2000a), as it was historically (Delacour 1929, Robinson and Kloss 1931, Engelbach 1932, David-Beaulieu 1949–1950). Nonetheless the possibility that trends in the North might be repeated in the South and Centre indicates that the species would merit treatment as Potentially At Risk in Laos.

Oriental Pratincole Glareola maldivarum

Vientiane: At least 500 resting at Don Chuan on 24 October 1998, and one there on 7 November 1998.

This species seems to be a rare passage migrant through Laos (Duckworth *et al.* 1998a, 1999) and these numbers are unprecedented. There was no sign of any at this site in October 1999.

Small Pratincole Glareola lactea

Potentially At Risk in Laos

Upper Lao Mekong: In winter, c.1,270 between Ban Muangmom and Ban Paktha, 34 just upstream of Louangphabang, c.115 between Paklay and Don Chan and 94 at Ban Mai island (Vientiane); small numbers elsewhere. In April c.940 between Ban Muangmom and Ban Paktha, and two near Louangphabang (Table 1). In late April 2000, over 50 and over 30 near Chiang Khan island and Pakchom sandbar respectively (stretches 12 and 13 of Table 1). Vientiane: Three near Ban Houayhom on 29 March 1998. Two at Ban Thanasanghin on 15 November 1998, and at least 10 upstream of there in late April 2000. Up to 200 around Ban Thadua in February-April 1999 (including juveniles on 3 April), with at least eight there on 21 November 1999. Five at Don Chuan on 24 November 1999 and 50–60 there on 7 November 1998, 2 January 1999, 8 May 1999 and 14 December 1999; numerous (uncounted) on 2 December 1998; 30 in late April 2000. Middle Lao Mekong: at least four on a sandbar at Pakxan on 26 December 1998. In late April 2000, present sparsely downstream from Vientiane to Bung Khla; about 50 off Nakhon Phanom, including fledged juveniles; at least four between Nakhon Phanom and That Phanom; small numbers downstream to Ban Waan Noi; at least 20 at Ban Waan Noi itself; and over 200 off Mukdahan.

The numbers in Bokeo exceed those recently confirmed anywhere else in Laos, although it seems likely that counts along the southern Lao Mekong in 1996 (Evans et al. 2000a) only represented a proportion of the total population there. It is noteworthy that Oustalet (1898) also signalled that the species was especially common in the North, although Delacour and Greenway (1940b) recorded surprisingly few. Along the Mekong covered in 1999–2000, the recorded

distribution was patchy without obvious reason. This may reflect nothing more than the difficulties of observing the birds. These difficulties also mean that counts for many or all stretches are likely to be major underestimates. The birds spent long periods loafing in flocks on the top of large open sandy islands. Many such islands were so high above the water that their tops were not visible from the boat. This was especially so in April, with the lower water level, and it should not be concluded that numbers had decreased between winter and April. Furthermore, birds were unconcerned by even close passage of speedboats and did not flush. It can thus be quite easy to miss a flock. As examples, the Chiang Saen area was passed twice in December; on the first occasion, no pratincoles were seen; on the second, 840 were counted. None was seen from the boat on two trips past Ban Namgniou in December, but a visit on foot found over 50. As well as the large open sandbar habitat typical of the species in South and Central Laos, birds were common (but in small groups) around the rocky parts within channel mosaic habitat, even including mosaic stretches with very little sand. Oustalet (1898) had already referred to the species's abundance in areas of rocks. The species persists well on river stretches running through urban North Laos (e.g. Vientiane city, and a flock of 230 in central Ban Houayxai on 27 December 1999) as it does around Savannakhet city (Evans 2001). It seems to be much less sensitive to disturbance and/or harvesting than are the larger sandbar waders. Birds were absent from Vientiane during the high-flow season: in 1999, none was recorded during either October visit, but numbers built up from late November to December. In 1998, water levels dropped earlier and birds were present in numbers by early November. Where the birds go when water levels are high is unclear.

On 24 November 1999, on Don Chuan, two birds were caught by hand. Initially assumed to be performing a distraction display, they allowed close approach and moved only clumsily away from a grasping hand. On release, each glided down to the sand and crash-landed. Possibly these birds were chemically poisoned. As no people were out on the island collecting the birds, poisoning is perhaps more likely to have been accidental than deliberate, and the scale of the problem is unclear.

HERRING-TYPE GULL Larus aff. L. argentatus

Upper Lao Mekong: A bird in first-winter plumage off Chiang Saen on 28 and 30 December 1999. The bird (presumably the same) was also seen on 22 January 2000. A second-winter on Ban Mai island (Vientiane) on 8 January 2000 (Table 1).

These are the first records of this complex of gulls for Laos. Firm identification is not yet possible. The upperparts of the second were similar in darkness to those of suspected Heuglin's Gulls *L. heuglini* seen at Xuan Thuy, Red River Delta, Vietnam (JWD unpublished data). Extraordinarily, a landscape photograph in the airline magazine *Visiting Muong Lao*, March–April 2000 (p. 43) shows a second-year herring-type gull atop a post in the Nam Ngum reservoir. This was photographed in mid-February 2000 (Hongheun Khounphithack verbally 2000), and when identification criteria have been clarified may well be identifiable to form.

Brown-Headed Gull Larus brunnicephalus

Upper Lao Mekong: Nine on 7 April 2000 upstream of Chiang Saen. **Vientiane**: Four adults, 4 km upstream of the Lao–Thai bridge on 11 April 1999. All were in breeding plumage.

There is one further recent record from North Laos, a single loafing around the Mekong at Louangphabang on 1–2 April 1996 (R. J. Tizard *in litt*. 2000), but other recent records come only from the far south (e.g. Thewlis *et al.* 1996). However, observations around Chiang Saen suggest that the species is probably occurs annually, although it is very scarce (PDR unpublished data). Previous published Lao records came from the early dry season and winter (Engelbach 1932, David-Beaulieu 1949–1950), as does a previously unpublished record of one near Vientiane on 4 November 1962 (W. W. Thomas *in litt*. 1999). There seems also to be a passage movement in April.

BLACK-HEADED GULL Larus ridibundus

Vientiane: One in first-winter plumage by Don Chuan on 7 November 1998.

The only previous published Lao record, an adult, was seen from Chiang Saen in November 1988 (C. M. Poole verbally to Duckworth *et al.* 1999). There is also a record from nearby Chiang Saen Lake (= Nong Bong Khai), Thailand, on 7 December 1985 (PDR unpublished data). The lack of records on the Upper Lao Mekong in 1999–2000 suggests that it is very scarce in Laos in winter, if present at all.

RIVER TERN Sterna aurantia

At Risk in Laos

Upper Lao Mekong: An adult in breeding plumage on Ban Mai island (Vientiane), 8 January 2000 (Table 1).

Several species of tern used to breed commonly along the Lao Mekong, but are now on the brink of national extinction. All historical trips along the Mekong upstream of Vientiane recorded River Tern: it seems to have been common (Bangs and van Tyne 1931, Robinson and Kloss 1931, Delacour and Greenway 1940b). The two other recent records from North Laos are of 1–2 birds (Thewlis *et al.* 1998). A previously unpublished record is of one in May 1966, probably downstream of Ban Houayxai (E. C. Dickinson *in litt.* 2000).

Whiskered Tern Chlidonias hybridus

Vientiane: One upstream of the Lao–Thai bridge on 25 March 1999. **Middle Lao Mekong**: 20 at Tha Uthen, 24 April 2000. All were in breeding plumage.

These are the first recent records from North and Central Laos respectively; other recent records are from the South (R. J. Tizard and J. W. K. Parr in Duckworth *et al.* 1999). All these recent records are from migration seasons. The only historical records are two birds in Savannakhet Province (undated) and several around Ban Houayxai in December 1938–January 1939 (Delacour and Greenway 1940b, David-Beaulieu 1949–1950).

BLACK KITE Milvus migrans

At Risk in Laos

Vientiane: Singles over the Mekong, 7 November 1998 and 15 January 1999. **Xiangkhouang**: Singles at Ban

Latsen on 14 February, 9 October and 27 November 1999, probably of the (sub)species *M.* (*m.*) *lineatus*.

M.(m.) lineatus was formerly a common winter visitor to Laos, including the Plain of Jars (David-Beaulieu 1944), but these (with one additional in Davidson in prep.) are the only recent midwinter records. The few other recent records come from migration seasons (Thewlis et al. 1998, Duckworth et al. 1999).

Brahminy Kite Haliastur indus

At Risk in Laos

Middle Lao Mekong: One immature at Ban Na Pho, and 1–2 adults at Khong Chiam in April 2000.

The bird at Ban Na Pho is the first recent record from Central Laos, although formerly the bird was abundant there (Thewlis *et al.* 1998 and references therein).

SHORT-TOED SNAKE EAGLE Circaetus gallicus

Xiangkhouang: One near Ban Phonsavan Airport at 09h45 on 30 November 1999 circled higher until lost to view.

The three previous Lao records are from southern Champasak Province in February 1993 (Thewlis *et al.* 1996), Phou Khaokhoay NBCA in November 1994 (Duckworth *et al.* 1998) and Dong Khanthung PNBCA in February 1998 (Round 1998). Both northern records are in November, the migration season; and both southern records in February, perhaps suggesting small numbers wintering.

CHINESE SPARROWHAWK Accipiter soloensis

Xiangkhouang: One perched and 105 migrating north (in several flocks) between 08h30 and 09h00 on 20 April 2000, around pinewoods.

This is the first observation of large numbers in Laos (cf. Duckworth *et al.* 1998a); the timing accords perfectly with spring passage through Hong Kong (over 98% of birds in second–fourth weeks of April: Carey *et al.* 2001).

EAGLE SP. Aquila

Xiangkhouang: A single over Ban Phonsavan pinewoods on 11 October 1999.

Several species of *Aquila* occur in Laos. Imperial Eagle *A. heliaca* was formerly a common winter visitor to Xiangkhouang (David-Beaulieu 1944). It seems unlikely that this is the case today.

Eurasian Hobby Falco subbuteo

Xiangkhouang: A single hunting at Ban Latsen on 9 October 1999.

The few Lao records of this species all have fallen in October (David-Beaulieu 1944, Thewlis *et al.* 1996); this is also the peak for records in Hong Kong (Carey *et al.* 2001).

Great Cormorant Phalacrocorax carbo

At Risk in Laos

Upper Lao Mekong: Two (an adult and a white-bellied immature) between Chiang Saen and Ban Muangmom on 30 December 1999, after a single in this stretch on 28 December. An adult just upstream of Louangphabang on 4–5 January 2000 (Table 1).

These are the first recent records for Laos; what was presumably one of these birds was also seen on 13

February 2000 (PDR unpublished data). There have only been two other recent records in northern Thailand, both of singles from Chiang Saen Lake (= Nong Bong Khai): on 15 February 1996 and 1 January 1997 (PDR unpublished data). Historically, Delacour and Greenway (1940b) described the species as common along the Upper Lao Mekong, and Bingham and Thompson (1901) in their statement that 'both [this species and Little Cormorant P. niger are common in the States in suitable localities' imply that these birds were on the Mekong. Both cormorants have evidently declined through hunting pressure, as have other large waterbirds in Laos. Little Cormorant may have become locally extinct, as it has not been recorded from North Laos since Oustalet (1898) and, potentially, Bingham and Thompson (1901). Both the recent sites are close to large towns where it would be difficult to kill large birds discreetly. Birds were confiding: the group of two were approached within 60 m, while the bird in Louangphabang did not fly from its water-level rock even when approached to within 12 m. The boatman here reported that this sort of bird arrived in October-November, and that numbers declined during the following months. He did not offer a reason for this change, but it seems likely to reflect killing rather than onward migration. These birds are probably from the same population as winters in Hong Kong, which is large and increasing (Carey et al. 2001). Thus, continued occurrence of this species in Laos seems possible, even in the absence of effective in-country protective measures.

Grey Heron Ardea cinerea Potentially At Risk in Laos

Upper Lao Mekong: In winter, 17 between Ban Xiangkhok and Ban Khonkeo, a single upstream of Pak Ou, three between Paklay and Ban Vang, and three between Paksang and Vientiane; only three in total in April (Table 1). One at Chiang Khan island on 20 April 2000. Vientiane: Two near Ban Thadua on 11 April 1999 and a single on Don Chuan, on 14 December 1999. Middle Lao Mekong: 11 flying over the river at Ban Phaeng on 24 April 2000. Singles in flight off Mukdahan and over Hat Sung, near Khemmaraj on 26 April 2000. Xiangkhouang: Two and a subadult at Ban Latsen on 9 and 12 October 1999 respectively.

Along the Upper Lao Mekong, most birds were seen loafing in small groups on massive sandbars with good all-round visibility. This is largely responsible for their clumped distribution. A few apparently foraging individuals were seen. Elsewhere in Laos, birds have been recorded coming in to floodplain marshes at dusk (Thewlis et al. 1998, Evans 2001). It is likely they spend the day in the comparative safety of large sandbars and only brave the floodplain, where they are much more likely to be slaughtered, to feed at night. Delacour and Greenway's (1940b) description of Grey Heron as common the length of the Mekong can hardly be applied today, and moreover these Mekong numbers are tiny compared with those on the Red River in Hanoi (Vietnam) and upstream. On the latter, which is of comparable size and with extensive sandbar habitat, Grey Herons occur in flocks of several hundred (e.g. at least 340 on 11 January 1998, and 395 on 31 October 1999, JWD unpublished data).

Purple Heron Ardea purpurea Potentially At Risk in Laos

Xiangkhouang: A subadult at Ban Latsen on 9 and 12 October 1999.

The wide river habitat of the Upper Lao Mekong is evidently unsuitable for this species; it was neither recorded in this stretch in 1938-1939 (Delacour and Greenway 1940b) nor in 1999-2000. Small numbers have been recorded widely across Laos in pools and marshes in recent years; it may breed in the South (Round 1998, Thewlis et al. 1998, Duckworth et al. 1999).

Black-crowned Night Heron Nycticorax nycticorax Potentially At Risk in Laos

Xiangkhouang: Two flew low over Ban Latsen, calling, shortly after dusk on 9 October 1999.

This species was formerly common at Latsen between September and December (David-Beaulieu 1944). Its scarcity in Laos (Duckworth et al. 1999 and references therein) contrasts with its status in Thailand where it is a common resident and winter visitor (Boonsong Lekagul and Round 1991).

Great Bittern Botaurus stellaris†

At Risk in Laos

Xiangkhouang: One in Ban Latsen market on 12 February 1999 had reportedly been shot nearby that day.

There are only two previous records of Great Bittern from Laos (Thewlis et al. 1996); the first was also from Ban Latsen, on 2 February 1940 (David-Beaulieu 1944).

Black Stork Ciconia nigra

At Risk in Laos

Xiangkhouang: A subadult flying high to the north paused on an earth bank at Ban Latsen for 20 minutes on 27 November 1999, then continued on its way.

Recently Lao records come only from the Nakai Plateau (Evans and Timmins 1998, Duckworth et al. 1998a) and Chiang Saen (PDR in Duckworth et al. 1999). Formerly it was an infrequent winter visitor to the Plain of Jars (David-Beaulieu 1944) and, probably much more commonly, to the Upper Lao Mekong (Delacour and Greenway 1940b). These birds are presumably from the same population as those visiting Hong Kong, where a decline is also evident (Carey et al. 2001).

RATCHET-TAILED TREEPIE Temmurus temmurus

Xaisomboun: A group of at least three on 15 November 1999, in scrubby secondary trees amid grassland on highly degraded hills at about 1,200 m.

All other Lao records have been from evergreen forest or adjacent lightly degraded derivatives (Thewlis et al. 1998, Duckworth et al. 1999, PD unpublished data); there was no such habitat anywhere nearby. This is the most westerly Lao record to date.

LARGE-BILLED CROW Corvus macrorhynchos

Upper Lao Mekong: In winter, two groups of two: c.20 km downstream of Ban Xiangkhok and at Paklay. In April, four well-spaced singles, in remote stretches of river. Vientiane: one near Ban Thadua on 13 February 1999. Middle Lao Mekong: Two and one at Pakxan on 26 December 1998 and 16 April 2000 respectively.

This low total of records indicates the current scarcity of this species across North Laos. The sighting at Ban Thadua is the only recent record from the Vientiane urban area (Sangthong, where recorded by Duckworth [1996], although in Vientiane Municipality, is not urban). The only other recent records from North Laos traced by us, including the extensive survey effort across northern NBCAs documented in Davidson (in prep.), are as follows: common around the rugged terrain of Phou Dendin NBCA (Duckworth et al. 1998a); present in Phou Khaokhoay NBCA in 1994 (Duckworth et al. 1998a), but clearly rare there as not recorded at all in several years by J. W. K. Parr (in litt. 2000); groups of two at Nam Ngum Reservoir on 15 November 1992 and 6 December 1998 (JWD unpublished data); and one on 8 March 1997 on the Louang-Namtha plain (assessment as 'common' here by Tizard et al. [1997] was an error: R. J. Tizard in litt. 2000). This crow has clearly undergone a massive decline in Laos. Formerly it was common throughout Xiangkhouang province (Delacour and Greenway 1927, David-Beaulieu 1944), numerous in the Upper Lao Mekong valley, especially near villages (Delacour and Greenway 1940b), and was also recorded in North Laos by Bangs and van Tyne (1931) and Robinson and Kloss (1931). In the South and Centre it was extremely common, specifically noted as common and bold in towns (Delacour 1929, Engelbach 1932, David-Beaulieu 1949–1950). It is now reduced to very low densities across much of Laos, with the best numbers remaining in remote areas around large Mekong tributaries, notably in two areas supporting various other large quarry species of open country: Champasak-Attapu Provinces and the Nam Theun basin (Thewlis et al. 1996, Evans and Timmins 1998, Duckworth et al. 1998, Evans et al. 2000a, PD unpublished data). Clearly, all observations of crows from North Laos should be documented, and the species may well merit being considered At Risk in Laos.

YELLOW-BELLIED FANTAIL Rhipidura hypoxantha

Xiangkhouang: Common (2–8 daily) on Phou Gnouan in the highest forest in October and November 1999, and a single there on 19 April 2000.

There are only three previous known sites for this species in Laos, two of which are in Xiangkhouang Province (David-Beaulieu 1944, Duckworth et al. 1999). Phou Gnouan, which goes only to 1,825 m, is rather lower than the proposed lower limit for breeding of the species of 2,000 m in Duckworth et al. (1999); maybe it is a non-breeding visitor to this mountain.

BLACK-BREASTED THRUSH Turdus dissimilis Little Known in Laos

Xiangkhouang: A freshly killed male in Ban Phonsavan market on 14 February 1999; and a hunter in the Phou Gnouan forest carried a shot male on 28 November 1999.

This species has been recorded in Laos a few times (Thewlis et al. 1998, Duckworth et al. 1999), but is probably a regular visitor to hill forest in the North.

Grey-winged Blackbird Turdus boulboul †

Little Known in Laos

Xiangkhouang: A freshly killed male in Ban Phonsavan market on 14 February 1999.

This is the only recent record of the species from Laos; previous records come only from Xiangkhouang province (no specific localities, but indicated as rare: David-Beaulieu 1944) and Lo-Tiao (Delacour and Greenway 1940b).

Purple Cochoa Cochoa purpurea †

Little Known in Laos

Xiangkhouang: Three males and six females freshly killed in Ban Phonsavan market on 12 February 1999 (photographed).

This is the first record for Laos. A provisional field record from Nam Theun Extension Proposed NBCA in 1994 was withdrawn (Thewlis *et al.* 1998).

JERDON'S BUSHCHAT Saxicola jerdoni

Upper Lao Mekong: Commonly seen downstream of Paklay in winter and in the Ban Muangmom-Ban Xiangkhok stretch in April, with smaller numbers in other stretches boated in April. There was only one boatbased sighting in winter upstream of Louangphabang, and that from close to the southern extremity (Table 1). However, ground-based observations found the species in all suitable channel bushland checked in the far north in winter, and showed it to be abundant in April. In winter, there were four single males, one in bushland and three in tall grass growing beside the channel at Ban Namgniou on 30 December 1999; two single males and two unsexed (heard calling in response to a male in view) at Ban Khonkeo on 1 January 2000; and a male at Ban Namgnon-Kao on 2 January 2000. In April, there were seven males (some singing) at Ban Khonkeo on 6 April; and at least 24 males at Ban Namgniou on 9 April, with up to five males and one female visible per scan. Additionally, four males were seen between Louangphabang and Pak Ou on 29 January 1999, and about 10 pairs (at least some with fledged young) were watched in *Homonoia* scrub around Pakchom sandbar (stretch 13 of Table 1), on 21–22 April 2000. **Vientiane**: A male in *Homonoia riparia* at Ban Thanasanghin on 15 November 1998. **Xaisomboun**: A male in a dry scrubby gully just north of the town on 13 November 1999. Xiangkhouang: a male in fallow hai on Phou Gnouan (c.1,700 m) on 19 April 2000.

Along the Upper Lao Mekong the species is clearly abundant, particularly in channel mosaic habitat. In winter, although obvious from the boat downstream of Paklay, where birds were perching prominently at all times of day, in the Bokeo stretch none was seen from the boat. Land-based observations indicated that at this season the species was not singing and not perching prominently. In April, birds were much more conspicuous in this northern region, as they were singing and perching prominently, frequently. Distribution was patchy, as assessed from the boat. Birds were clearly in good numbers around Ban Houayxai and up past Ban Namgniou; in parts of the stretch between Ban Muangmom and Ban Xiangkhok; and between Louangphabang and Pak Ou. However, birds were scarce or absent around Chiang Saen and in much of the length between Ban Houayxai and Pak Ou, notably in a long stretch centred on Muang Pakbeng. Only areas with a wide stand of rocky bushland (i.e. not merely a narrow bank-side band) seemed to support high numbers. The majority of birds were overlooked from

the boat: e.g. while passing the known dense population of Sangthong (Duckworth 1997) only two individuals were seen. Assuming similar proportions of birds present to birds observed throughout the length of river surveyed, the populations in the Paklay-Sangthong stretch and in some parts of the far north are clearly very large. As most search effort from the boat in winter was devoted to large birds, with effort specifically for Jerdon's Bushchat restricted to spot-checking suitable habitat every hour or so, to check for presence in that stretch, the absolute numbers in Table 1 mean little. In April, with confirmation that birds were perching prominently and were visible from the boat, more effort was made to establish the species's distribution. While there may well be odd birds throughout the length of river boated, it is likely that the broad pattern shown for April in Table 1 is true (for example, Common Stonechats behaving in a similar fashion were picked up in areas devoid of Jerdon's Bushchats).

Downstream of the Sangthong area lies a break in truly suitable habitat at least until Vientiane. Although patches of bushland occur to within 30 km of Vientiane, no Jerdon's Bushchats were seen from the boat downstream of Sangthong. The record from Ban Thanasanghin is the furthest downstream yet in Laos, but comes from well before the breeding season. Thus, the downstream extent of breeding is unclear. Recent extensive observation in Mekong channel mosaic in northern Cambodia did not find the species (Davidson et al. 2001). The habitat use of this species in Laos is perplexing, with birds breeding at high densities in primary river-channel scrub of the Mekong, and also nesting in mid- and high-altitude secondary scrub and grass in the northern highlands (Duckworth 1997). Its use of the latter habitat suggests that it is not at risk in Laos (Duckworth et al. 1999), and although it was formerly considered globally Near Threatened (Collar et al. 1994) it was dropped from this list by BirdLife International (2000).

Purple-backed Starling Sturius sturninus

Xiangkhouang: At Ban Latsen, at least two on 9 and 12 October 1999 in a large flock of mixed starlings, mainly Chestnut-tailed.

Previous records of Purple-backed Starling in Laos were of a flock in Xiangkhouang town in September 1939 (David-Beaulieu 1944), and of a small flock at Ban Mai (Xaignabouli Province; precise locality untraced) on 28 April 1936 (Deignan 1938). It probably occurs only on passage.

FIRE-CAPPED TIT Cephalopyrus flammiceps

Upper Lao Mekong: A single near Ban Namgnon-Kao on 27 December 1999. The bird was in the crown of a medium-sized acacia amid cultivation and coarse growth, a few hundred yards from the Mekong.

The two previous Lao records are both from the Upper Lao Mekong: from Lo-Tiao (only a few kilometres away) and Chiang Saen (Delacour and Greenway 1940b, PDR in Duckworth *et al.* 1999). Although usually a bird of montane forest (Boonsong Lekagul and Round 1991, Robson 2000), both this record and that at Chiang Saen were in the valley bottom.

GREAT TIT Parus major

Xiangkhouang: Common (many birds daily) in Ban Phonsavan pinewoods; a pair feeding well-grown fledglings in April 2000.

The species is very local in Laos, particularly by comparison with northern Vietnam. The only other recent record from the North is from the same pinewoods in mid-July 1996 (RJT unpublished data). Historically, David-Beaulieu (1944) noted it as abundant in these same pinewoods, while Delacour and Jabouille (1927) had noted it as common around habitations in the province. It was recorded in the far north by Bangs and van Tyne (1931). It occurs locally in deciduous dipterocarp forest in South and Central Laos: Xe Bang-Nouan and Xe Pian NBCAs, Xe Kong and Savannakhet Provinces and Salavan (Engelbach 1932, David-Beaulieu 1949–1950, Thewlis et al. 1996, Evans and Timmins 1998, Duckworth et al. 1998a, Showler et al. 1998a). Different subspecies occupy these two habitats, with P. m. templorum in the southern lowland deciduous dipterocarp forest, and P. m. nubicolus in northern pinewoods (Delacour 1950). In areas of apparently suitable habitat in the centre (e.g. the Nakai Plateau pinewoods) the species appears to be absent (Evans and Timmins 1998, Duckworth et al. 1998a).

SAND MARTIN Riparia riparia

Vientiane: At Ban Thadua, two on 20 March 1999, at least three on 25 March, 60 or more on 3 April, and at least 10 on 11 April 1999.

These numbers are strongly indicative of passage; none was found at this site during the several visits in February and the first two-thirds of March. By contrast, in winter it is abundant on the Mekong around Phnom Penh (Poole *et al.* in prep.). Other recent Lao records published as this species (e.g. Thewlis *et al.* 1996) in fact did not rule out Pale Martin *R. diluta*. These 1999 individuals were identified confidently as *R. riparia* from prolonged, well-lit, close flight views, the observer aware of features to check as per Grimmett *et al.* (1998). Historical Lao records were reviewed in Duckworth *et al.* (1999).

PLAIN MARTIN Riparia paludicola At Risk in Laos

Upper Lao Mekong: Abundant in the far north: 300 was probably a considerable underestimate of the number between Ban Xiangkhok and Ban Muangmom in December. Smaller numbers were scattered downstream to Sangthong. Fewer were seen in April, possibly merely reflecting viewing conditions (Table 1). In late April 2000, five were seen upstream of Pakchom sandbar (stretch 13 of Table 1). Vientiane: At least 60 in an area of tall sand- and mud-banks around Ban Xayfong on 25 March 1999, with up to ten nearby in April.

A healthy population remains in the Upper Lao Mekong, although the species has declined in South and Central Laos (Duckworth *et al.* 1999). Several potential breeding colonies were seen, e.g. at Ban Viangkham. In addition, sexual chasing and calling was occurring almost the length of the Mekong travelled, especially in winter. Records were patchily distributed along the channel. Numbers present at areas visited several times fluctuated, presumably reflecting varying feeding heights and local movement along the river.

Numbers seemed to be higher in stretches with many rocky outcrops, a pattern shown by Wire-tailed Swallow in South and Central Laos (Thewlis et al. 1998), perhaps with the latter reflecting nest-site availability. However, Plain Martins nest in sand cliffs, and any association with rocky stretches may more likely reflect increased insect prey numbers in more heterogeneous habitats. The species was recorded breeding (one active nest hole, and additional martins) between Ban Phakam and Ban Phaoy, south of Ban Houayxai, on 21 May 1966 (Dickinson 1966). On 25 December 1983, there were 40 presumed nest-holes of Plain Martins in earth banks at the Ruak River, the small stream dividing Myanmar from Thailand just upstream of Chiang Saen (about 20 birds were seen in the air). This colony had gone by the mid-1990s, due to the bank of the stream being concreted at that point.

Wire-tailed Swallow Hirundo smithii

Potentially At Risk in Laos

Upper Lao Mekong: Two at Muang Pakbeng on 3 January 2000, in a sexual chase. Otherwise, in both winter and April, recorded only downstream of Ban Bo, and only common downstream from the Thai/ Xaignabouli border to Paksang (Table 1). The total of 55 is probably a major underestimate, although there are no land-based observations to demonstrate this (cf. Plain Martin). At least six downstream of Pak Ou on 29 January 1999. In late April 2000, 5-6 around Chiang Khan island, including juveniles, and 20-30 around Pakchom sandbar. Vientiane: Three just upstream of Ban Thanasanghin on 15 November 1998. A total of 200-500 off Ban Nasa on 26 September 1999. In late April 2000, a few at Ban Phu Khao Thong, two or more upstream of Ban Thanasanghin, and two at 17°56'00"N 101°44'12"E. Middle Lao Mekong: In late April 2000, one south-east of Bung Kan; two off Mukdahan; about 15 at Hat Sung, Khemmaraj; and at least 10 at Khong Chiam.

The Mekong between Pak Ou and Vientiane supports a regionally outstanding population of this species. Along the Upper Lao Mekong, the species was not recorded upstream of Muang Pakbeng, despite an abundance of seemingly suitable habitat, and careful searching. This lack of records must reflect genuine scarcity and there are no historical records on the Mekong from upstream of Louangphabang, nor has it ever been recorded from further upstream in China (Cheng 1987). Few unidentified hirundines were seen from the boat, especially in winter (Table 1). Although hirundines tend to feed higher in the middle of the day, substantial amounts of observation in Bokeo were in the early morning and evening, when the other hirundine species were down lower. Furthermore, many Wire-tailed Swallows were recorded south of Pak Ou, irrespective of time of day. Many birds were perched on rocks or flying around them, low down. There are no records from the Thai side of the Bokeo stretch (PDR unpublished data), also suggesting a genuine absence or scarcity of the species there. The reason for this is unclear. Much of the far north, especially in the stretch forming the Lao/Myanmar border, was full of suitable mid-stream rocky outcrops and looked very similar to other areas supporting the species further south, e.g. the lower Nam Kading (Duckworth et al. 1998a).

Northern House Martin Delichon urbica

Xiangkhouang: Two over Phou Gnouan on 11 October 1999.

The only recent records of the species in Laos come from Central Laos (Nakai Plateau: Duckworth *et al.* 1998), although there are historical records for the North (David-Beaulieu 1944).

ASIAN HOUSE MARTIN Delichon dasypus

Upper Lao Mekong: At least 20 birds at each of Ban Houayxai and Ban Namgnon-Kao on 27 December 1999. No other records, despite substantial observation in both areas in the following week.

Atypically cold weather, which had been in progress for several days, presumably brought the birds in on 27 December. From the next day it warmed markedly and no more birds were seen. Asian House Martin has been recorded widely in Laos in recent years, mainly from in or adjacent to hills (Duckworth 1996, Evans and Timmins 1998, Duckworth *et al.* 1998a, Davidson in prep.). As a mobile species, well illustrated by these records, it is difficult to define a regular range for it.

NEPAL HOUSE MARTIN Delichon nipalensis

Xaisomboun: Over 200 birds, with Dusky Crag Martins and swiftlets, around high karst (c.1,120 m) c.5 km south-west of the town on 14 November 1999.

Although first recorded for Laos only in 1993 (Thewlis *et al.* 1996), the species occurs widely in rugged hill areas (Duckworth *et al.* 1998a, 1999); this is the northernmost Lao record to date.

CHESTNUT-FLANKED WHITE-EYE Zosterops erythropleurus Xiangkhouang: Common on Phou Gnouan in November 1999; about 10% of 200 or so white-eyes identified were of this species, but hundreds more were present and not seen clearly.

Although only first recorded for Laos in winter 1995/1996 (Dymond 1995), records in subsequent winters (Evans 2001, Davidson in prep., R. J. Tizard verbally 1999) suggest that it is a regular visitor.

SPOTTED BUSH WARBLER Bradypterus thoracicus

Upper Lao Mekong: Common in rank coarse growth at Ban Namgniou on 9 April 2000 (not confirmed as this species) and heard in the Mekong channel at both Chiang Khan island and Pakchom sandbar in late April 2000

Calls and appearance of birds at Ban Namgniou are compatible with the northern, longer-distance migrant subspecies *B. (t.) suschkini* or *B. (t.) davidi*, which may be better considered a separate species, *B. davidi* (Round and Loskot 1995). No birds of the genus were found in winter in this same area of rank growth despite careful searching. This form is the only one of the genus common in lowland riverine situations in Thailand (PDR unpublished data). This is the first record for Laos, the lack of previous Lao records presumably reflecting the limited effort in appropriate habitat.

Bianchi's Warbler Seicercus valentini

Xiangkhouang: One on Phou Gnouan in November 1999. Other records of the genus (Appendix 1) were not identified to species.

Alström and Olsson (1999) reclassified the nominal 'golden-spectacled warbler Seicercus burkii' into five species. One bird on Phou Gnouan in November called with a subdued, soft, slightly hurried-sounding whistled heuw call, repeated regularly. This fits Bianchi's Warbler S. v. valentini, a form that (on the basis of other records assembled by Alström and Olsson 1999) could be expected to occur in Laos and is listed for the North by Robson (2000). This is based on specimens from Lo-Tiao (two, 10-11 January 1939) and Xiangkhouang (one, 10 January 1926) held in NHM (Tring, U.K.: C. R. Robson in litt. 2000). The two from Lo-Tiao, collected by J. Delacour and J. C. Greenway, are labelled as S. burkii affinis. This is now considered a separate species, and while traditionally listed as occurring in Laos (e.g. Delacour and Jabouille 1940, King et al. 1975), this confusion with historical specimens increases even more the doubt surrounding the occurrence of S. affinis in Laos (see Duckworth et al. 1999).

HWAMEI Garrulax canorus

Xaisomboun: A small flock in karst scrub on 16 November 1999. **Xiangkhouang**: Single small flocks in pinewoods above Ban Phonsavan on 30 November 1999 and 20 April 2000.

There are rather few records of the species in Laos (Delacour and Jabouille 1927, Bangs and van Tyne 1931, David-Beaulieu 1944, 1949–1950, Tizard *et al.* 1997, R. J. Tizard verbally 1999), perhaps reflecting its usual occurrence in scrub rather than habitats of higher conservation importance (and thus survey effort). It is under heavy trapping pressure in Vietnam (J. C. Eames verbally 1997–1999) and has recently been added to CITES Appendix II. Listing of Lao records may therefore be useful.

YELLOW-EYED BABBLER Chrysomma sinense

Upper Lao Mekong: Two small flocks at Ban Namgniou on 30 December 1999, one flock there on 9 April 2000, and one small flock at Ban Khonkeo on 31 December 1999. **Xaisomboun**: A small flock on 16 November 1999. **Xiangkhouang**: A small flock at Ban Latsen on 15 February 1999.

All records came from areas of coarse vegetation mixed with tall grass. Although widespread and common in Thailand (Boonsong Lekagul and Round 1991), this species may be localised in Lao distribution (Duckworth et al. 1998a). Like other recent Lao sites with records, Ban Latsen and Muang Xaisomboun are degraded midaltitude areas, but the Bokeo records come from the Mekong floodplain. PDR found this species in tall grass on the Thai bank in the southern part of the Upper Lao Mekong, at both Chiang Khan island and Pakchom sandbar, in late April 2000.

Oriental Skylark Alauda gulgula

Upper Lao Mekong: Several birds heard singing at Ban Viangkham on 1 January 2000, over an area of cultivation and fallow along the Mekong bank. **Xiangkhouang**: Three singing birds at Ban Latsen on 18 April 2000.

This species was first recorded in Laos only in late 1997 and has so far been found only in the Vientiane area (Parr and Parr 1998, Duckworth *et al.* 1999, Davidson in prep.). From Thai records mapped in

Boonsong Lekagul and Round (1991), the species's occurrence in the Upper Lao Mekong is not unexpected. The record from Ban Latsen suggests breeding up to at least 1,120 m.

CITRINE WAGTAIL Motacilla citreola

Upper Lao Mekong: A male with horses in puddly stubble at Ban Namgnon-Kao on 27 December 1999. A male and probably a female at the water's edge of a large bare sandbar near Ban Viangkham on 1 January 2000. Three males at Ban Khonkeo on 6 April 2000, a pair at Ban Namgniou on 9 April, 36 (mostly males) at Ban Donkhon on 7 April and singles at Chiang Saen on 7 and 8 April. Vientiane: A male on 14 December 1998 at Don Chuan, and singles at Ban Thadua on 25 March and 3 April 1999. Xiangkhouang: Two males at Ban Latsen on 13 February 1999.

This species was first recorded for Laos in winter 1992–1993, in the Mekong channel at Vientiane (Thewlis *et al.* 1996). It has now been found to occur there regularly in winter (these records; also Duckworth *et al.* 1998a). The above are the first Lao records away from this site and suggest that the species is well distributed and not uncommon. The reference in David-Beaulieu (1948) to a specimen of *Motacilla alba leucopsis* with a clean bright yellow face and underparts perhaps indicates a male Citrine Wagtail.

Baya Weaver *Ploceus philippinus* Potentially At Risk in Laos

Upper Lao Mekong: At Ban Xiangkhok, at least 40 in a tall, open-canopied fig tree in the grounds of a temple on 8 April 2000. Males were in breeding dress and birds were carrying nest material. A flock of at least 60 feeding in coarse ruderals at Ban Namgniou on 9 April 2000 flew in late afternoon into channel bushland to roost.

The status of this species in Laos is poorly known (Thewlis et al. 1996, Duckworth et al. 1999) but it seems to be markedly less common than might be expected. An additional, previously unpublished, past record, is that the species seemed to be common in the rainy season in the Mekong plain between Vientiane and Pakxan in the early 1960s (W. W. Thomas in litt. 1999). The birds in April 2000 were very conspicuous, and presumably were somewhere else in December–January; a possibility that adds another difficulty to assessing its national conservation status.

Black-headed Greenfinch Carduelis ambigua

Xiangkhouang: Common in Ban Phonsavan pinewoods, in flocks of up to eight, in February and November 1999 and April 2000 (little time was spent in the pinewoods in other months). Birds were heard around the pines at Jar site II, adjacent to Ban Latsen, in February. Away from pines, small numbers were feeding on seeds of ruderals in fallow *hai* field high on Phou Gnouan in November and in April.

The only previous Lao records are also from Xiangkhouang, where David-Beaulieu (1944) described the species as rather rare, and closely tied to pinewoods at c.1,200 m.

Yellow-breasted Bunting *Emberiza aureola* **Vientiane**: At least 350 along the Mekong bank and in paddies 4 km upstream of the Lao–Thai bridge on 11 April 1999.

The otherwise largest recent Lao counts (about 100 birds) come from the northern zone of Xe Pian NBCA in December 1992–January 1993 (Thewlis *et al.* 1996; unpublished data). The records from Xiangkhouang in Appendix 1 are more typical, being of single-figure numbers. Formerly, there were big flocks across Xiangkhouang and Savannakhet Provinces in autumn (David-Beaulieu 1944, 1949–1950), but other historical records are of small numbers (Bangs and van Tyne 1931, Engelbach 1932).

Black-faced Bunting Emberiza spodocephala

Upper Lao Mekong: Several dozen going to roost in tall coarse riverbank grass at Ban Namgniou on 30 December 1999. Up to eight found every time vegetated channel mosaic was searched at Ban Namgnon-Kao, Ban Khonkeo and Ban Namgniou in December/January/April. Also, two in a fallow riverbank field at Ban Namgniou on 9 April 2000.

There are not many other Lao records: a few (no habitat details) from Xiangkhouang province (Delacour and Jabouille 1927, David-Beaulieu 1944), and one bird in Nam Xam NBCA in January 1998 (Showler *et al.* 1998b). Attachment to Mekong channel scrub was noted for northern Thailand (Boonsong Lekagul and Round 1991). Northern Laos may be at the southern limit of the wintering range, as none has been seen in such habitat around Vientiane or in the Centre or South.

CONCLUSIONS

Surveys of Phou Bia and the montane forests of southeast Xiangkhouang Province are of very high importance. These areas are likely to hold much of national ornithological importance. The international bird conservation importance of the Upper Lao Mekong does not match that of the Cambodian Mekong. Even so, it is of different community composition (presence of Jerdon's Bushchat, abundance of Plain Martin, absence of Mekong Wagtail). This highly distinctive and vulnerable bird community is not represented in NBCAs, hence some permanent designation of a representative stretch for bird conservation is desirable. Suitable stretches would include much channel mosaic habitat: candidates are downstream of Paklay, upstream of Ban Vang, and (contiguous with the former) between Ban Vang and Sangthong. The stretch around Paklay has the logistical advantage that it is entirely within Laos; the other lengths are along the international border of Laos with Thailand, and any conservation-related activities would therefore be more complicated. The stretch between Louangphabang and Paklay has not yet been surveyed at all and a survey is of the highest priority, as from topographic maps it seems to contain much channel mosaic. More extensive surveys of Xiangkhouang grasslands are a moderate priority to investigate (1) wintering raptors, (2) grassland bird populations, and (3) birds of the associated marshes. Market trading is still heavy in Ban Phonsavan and merits further investigation and subsequent sympathetic regulation.

The conservation status of certain non-forest species in North Laos may be of special concern. Those worthy of mention fall into two groups. Firstly, species not designated as key species for national conservation by Duckworth et al. (1999) because they persist in good numbers (although in some cases only very locally) in the South and/or Centre: Common Hoopoe, Asian Koel, Red-wattled Lapwing, wintering egrets (all species), Large-billed Crow, and starlings and mynas (all species, including Common and White-vented Mynas). Secondly, species with no or few recent Lao records which, if they had not declined since historical times, might reasonably have been expected to be found much more commonly during these observations: Japanese Quail, Small Buttonquail, Short-eared Owl, Red Collared Dove (migrant population), Imperial Eagle, Lesser Kestrel, Black-billed Magpie, Asian Pied Starling and Chestnut Munia. At the next review of key species of birds for conservation in Laos, all these species should be considered for listing, as their populations are clearly well below carrying capacity across a major part of the

By comparison of the species accounts, the national importance of the northern zone of Xe Pian NBCA for conservation of wetland and open-country birds becomes incidentally apparent. Much of this zone's special wetland habitat is not included within current NBCA boundaries and recent industrial-scale peat extraction is likely to be degrading the area's ornithological importance considerably. The results presented here also re-emphasise the need for comprehensive ornithological investigation of the large wetlands that may remain in Central Laos (Claridge 1996); some were discussed by David-Beaulieu (1949–1950) but there is no recent information about any of them.

Observations in montane forest and pinewoods were too brief to comment on bird community status. These communities are relatively well represented in NBCAs. It may be important to survey any remaining mature pinewoods to assess the bird community. The height of Phou Bia and the relatively sizeable area in the higher montane zone (above 1,800 m) suggests that it may support a bird community important in Laos. Only two other high mountain areas (Phou Samsoum and Phou Xailaileng, both in Nam Chouan PNBCA) may be comparable in having a similar-sized area above 2,000 m. Aerial observations suggest that while a substantial patch of forest remains in the higher altitudes of Phou Bia, it is quite isolated from other forest. Contiguity to lower altitudes is probably broken and this community may thus be quite threatened.

The extensive river-channel bird counts, while not comprehensive, make clear that breeding populations of all species other than, potentially, Small Pratincole, Little Ringed Plover and various passerines, are likely to be below carrying capacity, and there have been many local extinctions. The balance of outright persecution and incidental disturbance in the loss and decline of these species is not clear, but there is a pattern of major regional declines in these species (Boonsong Lekagul and Round 1991, Duckworth et al. 1998b, 1999, Thewlis et al. 1998, Evans et al. 2000a, Poole et al. in prep.). Even without the issues of harvesting and disturbance, the major rivers of South-East Asia are facing a basket of threats (flow alteration and regulation; pollution; activities in their drainage basins) which acting synergistically are likely to result in major biodiversity

loss (Dudgeon 2000 and references therein). This means that the vitally important conservation attempts for river channel birds will be very complicated to implement. Since these observations were made, much mosaic habitat has already been destroyed, as part of a Chinese undertaking to increase the size of ships able to travel the Mekong between China and Thailand, Myanmar and Laos. It is the mosaic areas that currently limit shipping activity, and have therefore been slated for blasting to widen the channel. During dry season 2001-2002, four of the mosaic stretches in the Lao-Myanmar section were opened up. As this paper goes to press, it is unclear how much suitable habitat remains on either side of the blasted channel. In some stretches, the Mekong is so wide that even after opening, significant mosaic habitat could remain, indicating that while these activities have unquestionably been detrimental to channel bird communities, they may not have destroyed them. The current scheme is intended to extend down to Louangphabang, that is, to terminate upstream of the exceedingly important Paklay–Sangthong section. However, it is unclear what future extensions might be proposed, so this emphasises the need for consideration of conservation designation of some of this stretch now.

Whatever the total loss of channel habitat and bird populations to channel opening activities, it is certainly less than will occur if the six or more cross-Mekong hydropower projects seriously mooted for Yunnan, China, are built. This programme will devastate aquatic biodiversity in the entire Mekong catchment (Roberts 2001). Mosaic areas will be especially severely affected, because the wide seasonal amplitude in water flow and level that maintains this habitat will be greatly reduced.

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Species	Threat	B. Phonsavan	Ban Latsen	Phou Gnouan	Xaisomboun	Bokeo etc.	Pakbeng-L'phabang	Paklay-Vientiane	Thadua	Don Chuan	Mid Lao Mekong	Others	Market visits
CHINESE FRANCOLIN Francolinus pintadeanus			e										
BLUE-BREASTED QUAIL Coturnix chinensis	LKL									С			
JAPANESE QUAIL Coturnix japonica	LKL		[c]							С			
Rufous-throated Partridge Arborophila rufogularis													0,0,0,0,0,0
BAR-BACKED PARTRIDGE A. brunneopectus				b									7,0,0,0,0,0
Scaly-breasted Partridge A. charltonii													2,0,0,0,0,0
Mountain Bamboo Partridge Bambusicola fytchii													0,0,0,0,0,0
Red Junglefowl Gallus gallus						a					7		7,0,3,2,0,0
Silver Pheasant Lophura nycthemera													8,0,5,2,0,0
GREY PEACOCK PHEASANT Polyplectron bicalcaratum				b									
Lesser Whistling-duck Dendrocygna javanica								ь	a				
SPOT-BILLED DUCK Anas poecilorhyncha						ab		ab	abc	а		1	
Northern Pintail A. acuta						a			b	a			
Garganey A. querquedula			С				_						
COMMON TEAL A. crecca			a						a				
YELLOW-LEGGED BUTTONQUAIL Turnix tanki										С			
BARRED BUTTONQUAIL T. suscitator			e			В							
BUTTONQUAIL Turnix sp. (1)			a		a	a				d			
EURASIAN WRYNECK Jynx torquilla			d		a	b							
WHITE-BROWED PICULET Sasia ochracea				a									
Great Barbet Megalaima virens				bc									0,0,0,0,0,
Green-eared Barbet M. faiostricta	8-11											6	
GOLDEN-THROATED BARBET M. franklinii													0,0,1,1,0,0
BLUE-THROATED BARBET M. asiatica		A[cD]				a[b]	а						
Moustached Barbet M. incognita				ABC			a						
[Blue-eared Barbet M. australis]					[a]								
Соммон Ноорое Ирира ероря									b				
INDIAN ROLLER Coracias benghalensis						ab	bc	A					
Dollarbird Eurystomus orientalis						В	С	-					
Common Kingfisher Alcedo atthis			aCDE		a	Ab	С		а	de		6	
[BANDED KINGFISHER Lacedo pulchella]						[b]							
WHITE-THROATED KINGFISHER Halcyon smyrnensis		d	acde		a	AB	ВС	a					
BLACK-CAPPED KINGFISHER H. pileata			ce			aB	bС	b	С	d			
PIED KINGFISHER Ceryle rudis	ARL					b							

Species	Threat	B. Phonsavan	Ban Latsen	Phou Gnouan	Xaisomboun	Bokeo etc.	Pakbeng-L'phabang	Paklay-Vientiane	Thadua	Don Chuan	Mid Lao Mekong	Others	Market visits
Green Bee-eater Merops orientalis					[a]	A	b						
Blue-tailed Bee-eater M. philippinus	PARL					[b]		b					
CHESTNUT-HEADED BEE-EATER M. leschenaulti						b		b			a		
LARGE HAWK CUCKOO Hierococcyx sparverioides		ac	e	С		b							
Indian Cuckoo Cuculus micropterus						В							
PLAINTIVE CUCKOO C. merulinus						aB	ac		abc	ь			
Drongo Cuckoo Surniculus lugubris						Ъ	С	^					
Green-Billed Malkoha Phaenicophaeus tristis				ab		a	b						
GREATER COUCAL Centropus sinensis		d				AB	С	a	bc	[d]			
LESSER COUCAL C. bengalensis	,	acd	acde			A			С	Ъ		6	
RED-BREASTED PARAKEET Psittacula alexandri								a					
SWIFTLET Collocalia sp.		d			A	b			b				
WHITE-THROATED NEEDLETAIL Hirundapus caudacutus		d											
Brown-Backed Needletail H. giganteus				A		ab	c					1	
NEEDLETAIL Hirundapus sp. (1)		a											
ASIAN PALM SWIFT Cypsiurus balasieusis		a				AB	Вс	a	abc	bde		6	
Fork-tailed Swift Apus pacificus					a	b	a				a		
House Swift A. affinis					•		a						
Crested Treeswift Hemiprocne coronata						A	ь						
BARN OWL Tyto alba										see text			
Collared Scops Owl Otus bakkamoena						a							
ASIAN BARRED OWLET Glaucidium cuculoides		Ad		ac		AB	a	a		d		6	
GREAT EARED NIGHTJAR Eurostopodus macrotis							a						
[GREY NIGHTJAR Caprimulgus indicus]						[a]							
Nightjar Caprimulgus sp. (1)						A	Ъ						
ROCK PIGEON (feral/domestic) Columba livia			С					_					
ASHY WOOD PIGEON Columba pulchricollis	LKL												1,0,0,0,0,0
Spotted Dove Streptopelia chinensis						Ab						[6]	
RED COLLARED DOVE S. tranquebarica			ce										
Dove Streptopelia sp. (1)						A		a					
BARRED CUCKOO DOVE Macropygia unchall													2,0,1,0,0,0
EMERALD DOVE Chalcophaps indica				b		a							
Peaceful Dove Geopelia striata									ab	d			·
THICK-BILLED GREEN PIGEON Treron curvirostra			_	_									4,0,4,2,0,0
PIN-TAILED GREEN PIGEON T. apicauda													0,0,0,1,0,0
WEDGE-TAILED GREEN PIGEON T. sphenura		_		[b]						a			
MOUNTAIN IMPERIAL PIGEON Ducula badia						_							1,0,0,0,0,0
WHITE-BREASTED WATERHEN Amaurornis phoenicurus	_					ab	С						
Common Moorhen Gallinula chloropus						Ъ							
PINTAIL/SWINHOE'S SNIPE Gallinago stenura/G. megala			cd			AB			С				
Common Snipe G. gallinago			Acde			Ab			Ъ	b			
SNIPE Gallinago sp. (1)			С					<u>a</u>	С			3	
Spotted Redshank Tringa erythropus			d			ab		a	abc	a	a	2	
Marsh Sandpiper T. stagnatilis						Ъ			abc				
COMMON GREENSHANK T. nebularia						AB		aB	abc	abde	A	2	
GREEN SANDPIPER T. ochropus		_	acDe			a			ab	a			
WOOD SANDPIPER T. glareola			b			b			abc	b		2	
COMMON SANDPIPER Actitis hypoleucos						AB	Вс	AB	abc	bcde		1, 2, 6	_
GREY-TAILED TATTLER Heteroscelus brevipes											a	.000,000,0	
RED-NECKED STINT Calidris ruficollis			C										
TEMMINCK'S STINT C. temminckii						В		a	abc	abde		2,3, 6	
DUNLIN C. alpina						a		a		ad	-	_	
CURLEW SANDPIPER C. ferruginea										d	a		
RED-NECKED PHALAROPE Phalaropus lobatus			С						С				
GREATER PAINTED-SNIPE Rostratula benghalensis						Ъ							
PHEASANT-TAILED JACANA Hydrophasianus chirurgus											a		

Species	Threat	B. Phonsavan	Ban Latsen	Phou Gnouan	Xaisomboun	Bokeo etc.	Pakbeng-L'phabang	Paklay-Vientiane	Thadua	Don Chuan	Mid Lao Mekong	Others		Market visits
Great Thick-knee Esacus recurvirostris	ARL							ab			a	1		
BLACK-WINGED STILT Himantopus himantopus			b			ь			abc					
PACIFIC GOLDEN PLOVER Pluvialis fulva			С						ab					
GREY PLOVER P. squatarola										a				
LITTLE RINGED PLOVER Charadrius dubius			С			AB	aBc	AB	abc	abcde	А	2, 3, 6		
KENTISH PLOVER C. alexandrinus		_				Ab	ь	a	abc	abde	a	2, 3, 6		
Greater Sano Plover C. leschenaultii									b					
Lesser/Greater Sand plover C. mongolus/C. leschenaultii (1)									С		a			
River Lapwing Vanellus duvaucelii	ARL					AB	aBC	Ab			a	1		
Grey-Headeo Lapwing V. cinereus	PARL					AB	С	Ab						
RED-WATTLED LAPWING V. indicus			de											
Oriental Pratincole Glareola maldivarum					_					a				
Small Pratincole G. lactea	PARL					AB	aBc	AB	abc	abcde	A	3, 6		
Herring-type gull Larus argentatus group						a		a						
Brown-Headed Gull L. brunnicephalus						b			С					
BLACK-HEADED GULL L. ridibundus										а				
RIVER TERN Sterna aurantia	ARL							a						
Whiskered Tern Chlidonias hybridus			-						b		a			
WHITE-WINGED TERN C. leucopterus											a			
Osprey Pandion haliaetus			С											
Oriental Honey-buzzard Pernis ptilorhyncus		bCd		abc	a	a	С							
Black-shouldered Kite Elanus caeruleus			Acd		а	b			bc			2		
BLACK KITE Milvus migrans	ARL		acd							a				
Brahminy Kite Haliastur indus			-								а			
SHORT-TOED SNAKE EAGLE Circaetus gallicus		c*												
Crested Serpent Eagle Spilornis cheela		d		С		a	аВс							
Eurasian Marsh Harrier Circus aeruginosus (2)			acd						С	d		6		
Pied Harrier C. melanoleucos			acde									6		
HARRIER Circus sp. (1)		ь	aCDe		a				С					
Shikra Accipiter badius						ab	bС					3		
CHINESE SPARROWHAWK A. soloensis		D											.,	
[Eurasian Sparrowhawk A. nisus]		[bd]	[c]		[a]									
Accipiter Accipiter sp. (1)	-	ad	ace	b	a	ab	Вс	a	С	d			***	
GREY-FACEO BUZZARD Butastur indicus		cd							c					
Common Buzzard Buteo buteo		С	acd		a	a								
Eagle Aquila sp.		b												
Common Kestrel Falco tinnunculus			AcD		A	a[b]				e		6		
Eurasian Hobby F. subbuteo			С											
Peregrine Falcon F peregrinus						a								
Great Cormorant Phalacrocorax carbo	ARL					a	b							
Little Egret Egretta garzetta			С			aB	С	[a]			a			
Grey Heron Ardea cinerea	PARL		С			Ab	b	b	С	e	a			
Purple Heron A. purpurea	PARL		С											
Great Egret Casmerodius albus			С			[a]b					a			
Intermediate Egret Mesophoyx intermedia			С											
Cattle Egret Bubulcus ibis						ab	С				a			
Chinese Pono Heron Ardeola bacchus			ae			В	С	a	bc					
Pond Heron Ardeola sp. (1)			bc		a	Ab	bc	ab		d	a	3.6		
LITTLE HERON Butorides striatus						Ab		ь		d				
CINNAMON BITTERN Ixobrychus cinnamomeus			e			b		[b]			a			
Great Bittern Botaurus stellaris	ARL		a											
Black Stork Ciconia nigra	ARL		d											
SILVER-BREASTED BROADBIll Serilophus lunatus						a								
Long-taileo Broadbill Psarisomus dalhousiae						b								
Asian Fairy Bluebird Irena puella						a								
[Blue-wingeo Leafbird Chloropsis cochinchinensis]						[a]								

Species	Threat	B. Phonsavan	Ban Latsen	Phou Gnouan	Xaisomboun	Bokeo etc.	Pakbeng-L'phabang	Paklay-Vientiane	Thadua	Don Chuan	Mid Lao Mekong	Others	Market visits
Brown Shrike Lanius cristatus			aCDE		a	a			abc	abde		6	
Long-tailed Shrike L. schach		b	aCDe		A	A							
GREY-BACKED SHRIKE L. tephronotus					а	Ab							
RATCHET-TAILED TREEPIE Temnurus temnurus					a						_		
Large-billed Crow Corvus macrorhynchos						ab	С	a	a			- 6	
Ashy Woodswallow Artamus fuscus						a							
BLACK-NAPED./SLENDER-BILLED ORIOLE Oriolus chinensis/O. tenuirostris	ŝ					b							
Maroon Oriole O. traillii				_		a							
[BLACK-WINGED CUCKOOSHRIKE Coracina melaschistos]						[a]							
ASHY MINIVET Pericrocotus divaricatus		d											
ASHY/ROSY/SWINHOE'S MINIVET P. divaricatus/P. roscus/P. cantonensis					a	b				d			
SHORT-BILLED MINIVET P. brevirostris				[ab]c									
SCARLET MINIVET P. flammeus					a	a							
Bar-winged Flycatcher-shrike Hemipus picatus				b	a	b							
Yellow-bellied Fantail Rhipidura hypoxantha				ABc									
WHITE-THROATED FANTAIL R. albicollis				AB		[a]							
Pied Fantail R. javanica									bc				
Black Drongo Dicturus macrocercus			Cd[e]			b		аВ	С	bd	A	6	
Ashy Drongo D. leucophaeus			_	ac	a	A	b					1	
Bronzed Drongo D. aeneus						a							
[Lesser Racket-tailed Drongo D. remifer]				[c]							_		
Spangled Drongo D. hottentottus		d**			a					a			
BLACK-NAPED MONARCH Hypothymis azurea					a	a				_ d		_	
ASIAN PARADISE-FLYCATCHER Terpsiphone paradisi		b								d			
Common Iora Aegithina tiphia						AB							
Great Iora A. lafresnayei						a							
Blue Rock Thrush Monticola solitarius					a	AB	aBc	A	b				
Blue Whistling Thrush Myophonus caeruleus				ь		a							2,0,1,1,0,0
SIBERIAN THRUSH Zoothera sibirica				Ab									
Scaly Thrush Z. dauma				b									
Dark-sided Thrush Z. marginata				b									
BLACK-BREASTED THRUSH Turdus dissimilis	LKL			<u>b</u>									0,0,1,1,0,0
Grey-winged Blackbird T. boulboul	LKL									_			0,0,1,1,0,0
Eyebrowed Thrush T. obscurus				B		[a]				. <u>.</u>			0,0,1,0,0,0
DARK-SIDED FLYCATCHER Muscicapa sibirica				С									
ASIAN BROWN FLYCATCHER M. dauurica			cE	С		b	С						
YELLOW-RUMPED FLYCATCHER Ficedula zanthopygia							С						
Mugimaki Flycatcher F. mugimaki				С									
SLATY-BACKED FLYCATCHER F. hodgsonii				В									
Rufous-gorgeted Flycatcher E strophiata				b									
RED-THROATED FLYCATCHER F. parva		aC	ce	b	A	Ab	В	A	bc	de		6	
[White-gorgeted Flycatcher F. monileger]				[a]									
Little Pied Flycatcher F. westermanni				ac		a							
Blue-and-white Flycatcher Cyanoptila cyanomelana			_	ab									
VERDITER FLYCATCHER Eumyias thalassina				A	a	A				e		_	
Large Niltava Niltava grandis				bC									
Small Niltava N. macgrigoriae				С									
HAINAN BLUE FLYCATCHER Cyornis hainanus		[a]		a									
HILL/TICKELL'S BLUE FLYCATCHER C. banyumas/ C. tickelliae					a	a	[c]						
GREY-HEADED CANARY FLYCATCHER Culicicapa ceylonensis			a	С	a	A	В	a		de			
SIBERIAN RUBYTHROAT Luscinia calliope		C	ADE	ab	a	AB							
BLUETHROAT L. svecica			ADE			В	С		a			2	
Siberian Blue Robin L. cyane						A							
Orange-flanked Bush Robin Tarsiger cyanurus				b									
Oriental Magpie Robin Copsychus saularis			ac			AB	В	A	b	d		6	

Species	Threat	B. Phonsavan	Ban Latsen	Phou Gnouan	Xaisom-boun	Bokeo etc.	Pakbeng-L'phabang	Paklay. Vientiane	Thadua	Don Chuan	Mid Lao Mekong	Others	Market visits
WHITE-TAILED ROBIN Myionuela leucura				a									
Purple Cochoa Cochoa purpurea	LKL												9,0,0,0,0,0
Green Cochoa C. viridis													1,0,0,0,0
Common Stonechat Saxicola torquata			ACDE	bc	A	AB	С	a	bc	abde		3, 6	,,,,,
PIED BUSHCHAT S. caprata		b*	ce		a			а				6	
Jerdon's Bushchat S. jerdoni				С	a	AB	ABC	AB				3	
GREY BUSHCHAT S. ferrea		AbC	ac	abc	A	A							
CHESTNUT-TAILED STARLING Sturnus malabaricus			С					[a]					
Purple-backed Starling S. sturninus			С										
Black-collared Starling S. nigricollis			aCd			Ъ	a						0,0,0,0,0,
Common Myna Acridotheres tristis								a	ac	bde		6	
White-vented Myna A. cinereus			ac			ab							0,0,0,0,0,
HILL MYNA Gracula religiosa						Ъ			_				
CHESTNUT-BELLIED NUTHATCH Sitta castanea				a									
Velvet-fronted Nuthatch S. frontalis				Вс									
Fire-capped Tit Cephalopyrus flammiceps						a							
Great Tit Parus major		AbCD											
YELLOW-CHEEKED TIT P. spilonotus				ABC									
BLACK-THROATED TIT Aegithalos concinnus				С									
SAND MARTIN Riparia riparia									bc	[a]		[2]	
Plain Martin R. paludicola	ARL					AB	aBc	Ab	bc				
Dusky Crag Martin Hirundo concolor					A		a						
BARN SWALLOW H. rustica		Ъ	aCe		a	AB	Вс	A	abc	abcde		1,2,3,6	0,0,0,0,0,2
Wire-tailed Swallow H. smithii	PARL						Вс	AB			A	1	
Red-rumped Swallow H. daurica		ad	С			AB	С	b	ь	ae		1,6	
STRIATED SWALLOW H. striolata			D.			b	a	b			a	2	0.000.01
RED-RUMPED/STRIATED SWALLOW H. daurica/H. striolata (1)		С	D		A	aB	bc	a				3	0,0,0,0, 0,1
Northern House Martin Delichon urbica				a							-		
Asian House Martin D. dasypus Northern/Asian House Martin D. urbica/D. dasypus (1)						a b							
NORTHERN/ASIAN HOUSE MARTIN D. uroteard. dasypus (1) NEPAL HOUSE MARTIN D. nipalensis		С		a	A	D							
CRESTED FINCHBILL Spizixos canifrons				В	<u> </u>								3,0,0,0,0,
STRIATED BULBUL Pycnonotus striatus				ь									0,0,0,1,0,
BLACK-HEADED BULBUL P. atriceps						a							0,0,0,1,0,
BLACK-CRESTED BULBUL P. melanicterus			 -		a	A	a						
RED-WHISKERED BULBUL P. jocosus		d			A	AB	b		ac	b		6	
Brown-breasted Bulbul P. xanthorrhous		u		ABC	a	110	- 0		ac				4,0,4,4,0,
Sooty-headed Bulbul P. aurigaster		-	aCD	TIDO	A	AB	ь						1,0,1,1,0,
Stripe-throated Bulbul P. finlaysoni			uob			a							
FLAVESCENT BULBUL P. flavescens				Вс		u							1,0,0,0,0,
YELLOW-VENTED BULBUL P. goiavier	<u>_</u>			Бс							a		1,0,0,0,0,0
Puff-throated Bulbul Alophoixus pallidus						a							
Grey-eyed Bulbul Iole propingua					a	ab							
Mountain Bulbul Hypsipetes mcclellandii				bc									
BLACK BULBUL H. leucocephalus			,	В	a								1,0,2,2,0,
ZITTING CISTICOLA Cisticola juncidis		d* .	AbCDE		[a]				bc			6	
Bright-headed Cisticola C. exilis						b			bc	abcde		2, 3, 6	
RUFESCENT PRINIA Prinia rufescens		AbCD				a							
Grey-breasted Prinia P. hodgsonii					A	AB	С		С	acde			
YELLOW-BELLIED PRINIA P. flaviventris						aB		a	С	bde		2, 6	
PLAIN PRINIA P. inornata		d*	ae		a	AB			bc	abcde		6	
CHESTNUT-FLANKED WHITE-EVE Zosterops erythropleurus				В									
[JAPANESE WHITE-EYE Z. japonicus]			[a]	[B]	[a]	[A]	[a]						
w ziz zi juponionoj													
WHITE-EYE Zosterops sp. (1)		AC		aВ	A	A	В	A	С	bde		6	

Species	Threat	B. Phonsavan	Ban Latsen	Phou Gnouan	Xaisomboun	Bokeo etc.	Pakbeng-L'phabang	Paklay-Vientiane	Thadua	Don Chuan	Mid Lao Mekong	Others	
[PALE-FOOTED BUSH WARBLER Cettia pallidipes]		[a]											· <u> </u>
Japanese Bush Warbler C. diphone					-				b				
BUSH WARBLER Cettia sp. (1)		a		b	a						_		
SPOTTED BUSH WARBLER Bradypterus thoracicus						[B]		b					
Lanceolated Warbler Locustella lanceolata			a		a	b			С				
BLACK-BROWED REED WARBLER Acrocephalus bistrigiceps						ь			С	С			
[Oriental Reed Warbler A. orientalis]			[c]						[c]	[c]			
THICK-BILLED WARBLER A. aedon			С				С		abc	ad			
MOUNTAIN TAILORBIRD Orthotomus cuculatus				ABC									
Common Tailorbird O. sutorius		AbCD	acE		A	AB	aBC	A	bc	abde		1,6	_
DARK-NECKED TAILORBIRD O. atrogularis						a	С			_			
DUSKY WARBLER Phylloscopus fuscatus		cd	ACDE		A	AB	Вс	A	abc	abde		2. 3	
BUFF-THROATED WARBLER P. subaffinis		aC			а								
Radde's Warbler P. schwarzi		ac,e*			a	a	С		ac	bd		6	
[CHINESE LEAF WARBLER P. sichuanensis]		[ac]		[b]	-	-							
YELLOW-BROWED WARBLER P. inornatus		AbCd	ad[e]	Ab	A	Ab	aBc	A	bc	bde		6	
Greenish Warbler P. trochiloides (3)			[e]			A	В	A					
[Pale-legged Leaf Warbler P. tenellipes] (4)		d	[4]			a							
BLYTH'S LEAF WARBLER P. reguloides						a							
[White-tailed Leaf Warbler P. davisoni]				[ABC]									
GOLDEN-SPECTACLED-TYPE WARBLER Seicercus burkii-group (5)				ABc									
RUFOUS-FACED WARBLER Abroscopus albogularis				a									
Striated Grassbird Megalurus palustris			ADe	u	a								
HWAMEI Garrulax canorus		cd	TIDC		a								
WHITE-BROWED LAUGHINGTHRUSH G. sannio		cu			u	b							
Buff-breasted Babbler Pellorneum tickelli				abc									
[WHITE-BROWED SCIMITAR BABBLER Pomatorhinus schisticeps]						[a]							
Scimitar Babbler Pomatorhinus sp. (1)		d		ВС		В							
LIMESTONE WREN BABBLER Napothera crispifrons					A				_				
RUFOUS-FRONTED BABBLER Stachyris rufifrons		ACD				AB	b						
Golden Babbler S. chrysaea				ABc									
GREY-THROATED BABBLER S. nigriceps				ab					_				
STRIPED TIT BABBLER Macronous gularis		acd	ac	a	a	AB	aBC	A				1	
CHESTNUT-CAPPED BABBLER Timalia pileata			aCdE			AB	C						
YELLOW-EYED BABBLER Chrysomma sinense			а		a	Ab							
Silver-eared Mesia Leiothrix argentauris		,		AbC									
WHITE-BROWED SHRIKE BABBLER Pteruthius flaviscapis				b								_	
BLACK-EARED SHRIKE BABBLER P. melanotis				ABc									
CHESTNUT-FRONTED SHRIKE BABBLER P. aenobarbus				b									
Blue-winged Minla Minla cyanouroptera				ABC					_				
RED-TAILED MINLA M. ignotincta				AB									
RUFOUS-WINGED FULVETTA Alcippe castaneceps				ABc									
Brown-cheeked Fulvetta A. poioicephala						a	a						
RUSTY-CAPPED FULVETTA A. dubia				С									
GREY-CHEEKED FULVETTA A. morrisonia (6)		·		ABC									
[STRIATED YUHINA Yuhina castaniceps]				[b]									
WHISKERED YUHINA Y. flavicollis				ABc									
WHITE-BELLIED YUHINA Y. zantholeuca						a							
Lark Mirafra / Alauda sp.						*						6	
Oriental Skylark Alauda gulgula			Е			a							
YELLOW-VENTED FLOWERPECKER Dicaeum chrysorrheum					[a]		a						
Fire-breasted Flowerpecker D. ignipectus				AB	[~]		u						
SCARLET-BACKED FLOWERPECKER D. cruentatum						AB	a		bc				
FLOWERPECKERS Dicaeum spp. (1)							Bc		0.0				
Purple-naped Sunbird Hypogramma hypogrammicum						a					_		
OLIVE-BACKED SUNBIRD Nectarinia jugularis						u							

Species	Threat	B. Phonsavan	Ban Latsen	Phou Gnouan	Xaisom-boun	Bokeo etc.	Pakbeng-L'phabang	Paklay-Vientiane	Thadua	Don Chuan	Mid Lao Mekong	Others	Market visits
OLIVE-BACKED/PURPLE SUNBIRD N. jugularis/N. asiatica						A						*	
BLACK-THROATED SUNBIRD Aethopyga saturata				b									
Crimson Sunbird A. siparaja			_			a	b						
LITTLE SPIDERHUNTER Arachnothera longirostra						AB							
Streaked Spiderhunter A. magna				ABc		a							
PLAIN-BACKED SPARROW Passer flaveolus												6	
Eurasian Tree Sparrow P. montanus	A	BCD**	ce			AB	аC	a	bc	abcde			
White Wagtail Motacilla alba		a	aCd		Α	AB	aBc	A	abc	abde		1,2,3,6	
CITRINE WAGTAIL M. citreola			a			aB			bc	b			
YELLOW WAGTAIL M. flava			[a]cD		A	[a]B			abc	abde		1, 2, 6	
GREY WAGTAIL M. cinerea					A	Ab	ab						
RICHARD'S PIPIT Anthus richardi			aCDE		A					acde		6	
PADDYFIELD PIPIT A. rufulus		l	AbCDE		a	AB			abc	bde		2, 6	
OLIVE-BACKED PIPIT A. hodgsoni		ACd		AB	A	AB	В			de			
RED-THROATED PIPIT A. cervinus			AcDe		A	Ab			bc	abde		2, 6	
BAYA WEAVER Ploceus philippinus	PARL					В							
White-Rumped Munia Lonchura striata					A	AB	b			С			
Scaly-breasted Munia L. punctulata			C		a	AB	С		bc	abcde		6	
Black-headed Greenfinch Carduelis ambigua		ACd	a*	bc									
Common Rosefinch Carpodacus erythrinus				_		a							
CHESTNUT-EARED BUNTING Emberiza fucata			E_										
Little Bunting E. pusilla			A										
YELLOW-BREASTED BUNTING E. aureola			ce						С				
Chestnut Bunting E. rutila		d			A		С						
Black-faced Bunting $E.$ spodocephala						AB							
Bunting Emberiza sp. (1)		С	_ D	b	A								

Key to columns (left to right)

Species: square brackets [] indicate provisional identifications. Numbers in parentheses after the scientific name are for the following information:

- (1) does not include individuals identified to species;
- (2) mainly or entirely Eastern Marsh Harrier C. (a.) spilonotus;
- (3) mainly or entirely Two-barred Warbler P. (t.) plumbeitarsus;
- (4) Sakhalin Leaf Warbler P. borealoides not ruled out;
- (5) species (see Alström and Olsson 1999) unclear;
- (6) in morphology these birds showed some differences (to be detailed elsewhere) from the Grey-cheeked Fulvettas common in the northern Annamites, e.g. in Nakai-Nam Theun NBCA.

Threat: codes are: ARL, At Risk in Laos; PARL, Potentially At Risk in Laos; LKL, Little Known in Laos (following Duckworth et al. 1999).

Ban Phonsavan: A, February 1999; B, October; C, November; D, April 2000. All records refer to pinewoods around the town except *airport and **urban area.

Latsen: A, February 1999; B September; C, October; D, November; E, April 2000. All records refer to Latsen marsh except a few from *Jar site 2. Observation effort in visit B was much reduced compared with the other four.

Phou Gnouan: A, October 1999; B, November; C, April 2000. All records refer to the broadleaf evergreen forest and adjacent hai and secondary regrowth; the few birds seen in the agricultural areas of the lower slopes are not included.

Bokeo etc.: A, December 1999-January 2000; B, April 2000. Records come mainly from Bokeo Province with some from upstream as far as Xiangkhok (Louang-Namtha Province) and downstream almost as far as Pakbeng (Oudomxai Province).

Pakbeng—Louangphabang: A, January 1999; B, January 2000; C, April 2000.

Paklay—Vientiane: A, January 2000; B, April 2000

Ban Thadua: A, 13 and 28 February 1999; B, 20,21 and 25 March 1999; C, 3 and 11 April 1999.

Don Chuan (and adjacent bank habitats) A, 24 October, 7 and 21 November 1998; B, 2 and 14 December 1998, 2 January 1999; C, 8 May 1999; D, 3 and 22 October, 24 November 1999; E, 6 and 14 December 1999.

Other: 1, Sangthong, 26 September 1999; 2, Sandbars in Mekong at Ban Houayhom, 29 March 1998; 3, Mekong midway between Vientiane and Paksang, 15 November 1998; 6, Pakxan wetlands and Mekong channel, 26 December 1998.

Market visits, all at Ban Phonsavan: 12 Feb 99, 14h00-15h00, 13 Feb 99, 14 Feb 99, 07h00, 14 Feb 99, 10h00, 15 Feb 99 12h00, 30 Aug 99, time not recorded.

Presence is indicated by the letter of the visit; common birds (in general, more than four contacts daily) are indicated in upper case. Species lists for Mid Lao Mekong and for visit 'b' to Paklay-Vientiane are selective. These sites were covered from the Thai side. Observations of birds outside the river channel and in Thailand are not included in this table.

APPENDIX 2
Gazetteer of localities mentioned in the text

Locality	Bank	Coordinates	Altitude (m) + geographic subunit
Ban Bo (ULM)	L	19°52'N 101°39'E	300, N, 10b
Ban Donkhao (ULM); not marked, local name	L	20°24'N 100°15'E	355, N, 10b
Ban Donkhon (ULM); not marked, local name	L	20°20'N 100°13'E	355, N, 10b
Ban Houayhom (MVM)	L	17°59'N 102°27'E	165, N, 10a
Ban Khonkeo (ULM)	L	20°17'N 100°24'E	345, N, 10b
Ban Latsen (XKG)	L	19°20'N 103°09'E	1120, N, 10b
Ban Lay (ULM)	L	19°59'N 101°54'E	295, N, 10b
Ban Mai island (MVM/ULM)	L	17°58'N 102°28'E	165, N, 10a
Ban Muangmom (ULM)	L	20°26'N 100°07'E	375, N, 10b
Ban Na Pho (MLM)	T	16°22'N 104°53'E	<150, C, 10a
Ban Namgniou (ULM)	L	20°22'N 100°22'E	345, N, 10b
Ban Namgnon-Kao (ULM)	L	20°25'N 100°20'E	350, N, 10b
Ban Paktha (ULM)	L	20°07'N 100°36'E	335, N, 10b
Ban Phaeng (Dist.), Nakhon Phanom Prov. (MLM)	T	17°58'N 104°13'E	<150, C, 10a
Ban Phonsavan pinewoods (XKG)	Ĺ	19°26'N 103°13'E	1200–1370, N, 10b
Ban Phu Khao Thong, Sangkhom Dist., Nong Khai Prov. (MVM)	T	18°12'N 102°09'E	160, N, 10a
Ban Sivilai (other)	L	18°19'N 102°37'E	175, N, 10a
Ban Thanasanghin (MVM)	L	18°05'N 102°18'E	180, N, 10a
Ban Thaxoang (ULM)	L	19°49'N 101°21'E	300, N, 10b
Ban Tonpheung (ULM)	L	20°18'N 100°06'E	365, N, 10b
Ban Vang (ULM)	L		
	L	18°03'N 101°51'E	195, N, 10a
Ban Viangkham (ULM)		20°14'N 100°27'E	330, N, 10b
Ban Waan Noi, Mukdahan Prov. (MLM)	T	16°42'N 104°46'E	<150, C, 10a
Ban Xiangkhok (ULM)	L	20°54'N 100°39'E	435, N, 10b
Ban Xayfong (MVM)	L	17°48'N 102°41'E	155, N, 10a
Bung Kan (Dist.), Nong Khai Prov. (MLM)	T	18°22'N 103°40'E	160, N, 10a
Bung Khla (Dist.), Nong Khai Prov. (MLM)	T	18°18'N 104°00'E	160, N, 10a
Chanuman (Dist.), Amnat Charoen Prov. (MLM)	T	16°13'N 105°01'E	<150, C, 10a
Chiang Khan island, Chiang Khan Dist., Loei Prov. (ULM)	T	17°53'N 101°38'E	210, N, 10a
Don Chan (ULM)	L	18°11'N 102°03'E	195, N, 10a
Hat Sung, Khemmaraj Dist., Amnat Charoen Prov. (MLM)	T	15°59'N 105°26'E	135, S, 10a
Jar site II (XKG)	L	19°19'N 103°10'E	1150, N, 10b
Khong Chiam (Dist.) Ubon Ratchathani Prov. (MLM)	Т	15°19'N 105°31'E	c.100, S, 10a
Lao-Thai bridge (MVM)	L	17°53'N 102°43'E	155, N, 10a
Muang Pakbeng (ULM)	L	19°54'N 101°09'E	305, N, 10b
Muang Xaisomboun (XSB); 2nd map name, Ban Mouang Cha	L	18°54'N 103°06'E	1120–1280, N, 10b
Mukdahan (Dist., Prov.) (MLM)	T	16°33'N 104°44'E	<150, C, 10a
Nakhon Phanom (Dist., Prov.) (MLM)	T	17°24'N 104°48'E	<150, C, 10a
Pakchom sandbar, Pakchom Dist., Loei Prov. (ULM)	T	18°02'N 101°52'E	c.200, N, 10a
Pak Ou (ULM)	L	19°03'N 102°13'E	275, N, 10b
Phou Gnouan (XKG)	L	19°25'N 103°18'E	1700-1825, N, 10t
Phou Phadeng (ULM)	L	20°28'N, 100°22'E	1550, N, 10b
Tha Uthen (Dist.), Nakhon Phanom Prov. (MLM)	Т	17°34'N 104°37'E	<150, C, 10a
That Phanom (Dist.), Nakhon Phanom Prov. (MLM)	Т	16°57'N 104°44'E	<150, C, 10a
Vat Xiangkhouan (MVM)	L	17°55'N 102°46'E	155, N, 10a
Xaignabouli-Thai border (ULM)	L/T	17°50'N 101°32'E	210, N, 10a

Key to columns

Localities are placed within survey area: MLM = Middle Lao Mekong and adjacent Thai floodplain; MVM = Mekong of Vientiane Municipality; ULM = Upper Lao Mekong; XKG = Xiangkhouang; XSB = Muang Xaisomboun; 'other' = a variety of sites outside these regions. 'Bank' indicates whether the named point is in Thailand or Laos; bird records from Thai sites came from the Mekong channel.

Coordinates: Thewlis *et al.* (1998) gave coordinates and altitudes for: Ban Houayxai (ULM), Ban Lak (20) (other), Ban Muangyo (other), Ban Namkeung-Kao (ULM), Ban Nasa (MVM), Ban Phonsavan (XKG), Ban Thadua (MVM), Champasak Province (other), Chiang Saen (ULM), Don Chuan (MVM), Dong Khanthung proposed NBCA (other), Lo-Tiao (ULM), Louang-Namtha town (other), Louangphabang town (ULM), Nam Chouan proposed NBCA (XKG), Nam Ngum reservoir (other), Nakai—Nam Theun NBCA (other), Nakai Plateau (other), Nam Et NBCA (other), Nam Kading river (other), Nong Khai (MVM), Paklay (ULM), Paksang (ULM/MVM), Pakxan (other), Phongsali (other), Phou Bia (XSB), Phou Khaokhoay NBCA (other), Phou Louey NBCA (other), Plain of Jars (XKG), Salavan town (other), Savannakhet (other), Vientiane (MVM), Xam-Nua town (other), Xe Bang-Nouan NBCA (other), Xe Kong river (other), Xe Pian NBCA (other), Xiangkhouang town (XKG).

Altitude + geographic subunit: The assignment to North, Central or South Laos for Thai sites reflects in which division lie the Lao parts of the channel at that point. The designation 10a or 10b is the classification used by MacKinnon and MacKinnon (1986).